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SMITHSONIAN INSTITUTION
BUREAU OF AMERICAN ETHNOLOGY
BULLETIN 143

000

HANDBOOK
OF
SOUTH AMERICAN INDIANS

JULIAN H. STEWARD, *Editor*

Volume 1
THE MARGINAL TRIBES

Prepared in Cooperation With the United States Department of State as a Project of the Interdepartmental Committee on Cultural and Scientific Cooperation

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UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1946

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Price [illegible]

[Title page]

THE YAHGAN

By John M. Cooper

INTRODUCTION

[133] **Natural environment.**—The *Yahgan* habitat is archipelagic, the mountainous islands constituting the last outposts of the Andean chain before it dips beneath the sea at Cape Horn (map 1, *No. 1A*;
[132] map 7).[1] Atmospheric temperatures at sea level differ somewhat from locality to locality, with a summer mean around 50° F., a winter mean close to the freezing point, and a winter minimum around 10° F. Snowfalls not infrequently occur even in the summer months (pl. 24). Relatively very cold or very warm spells are usually of short duration. Sudden changes in temperature, in wind velocity, and in sunshine, cloudiness, and precipitation are characteristic. Violent squalls and strong gales are common.

[137] The islands up to about 1,500 feet altitude are heavily wooded, chiefly with beeches (*Nothofagus betuloides* and *N. pumilio*, evergreen; *N. antarctica*, deciduous), together with Winter's bark (*Drimys winteri*), "cypress" (*Libocedrus tetragona*), and leña dura (*Maytenus magellanica*). The forest floor is thickly covered with rotting and rotten fallen trunks, which with the thick spiny masses of barberry bushes (*Berberis ilicifolia* and *B. buxifolia*) and holly (*Pernettya mucronata*) make travel through the woods extremely
[136] slow and difficult. Foxes and rats, the land mammals that could have helped in the *Yahgan* dietary, were eschewed. Marine mam-
[illegible] mals, fish, and other sea food were abundant in most localities. As a result of the foregoing conditions, the *Yahgan* lived mostly on the
[illegible] water and along the shore line, penetrating inland very little.

[131] **Territory.**—In the last century and probably from much earlier times the *Yahgan* regularly occupied the southern coast of Tierra del Fuego Island from about the eastern end of Beagle Channel to Brecknock Peninsula, and the islands south of this line to Cape Horn. But they evidently wandered more widely; *Yahgan* house sites and implements have been found as far north as Elizabeth Island in the Strait of Magellan (Bird, 1938, p. 261). Between Good Success Bay and the eastern end of Beagle Channel, there was considerable

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[1] [These maps have not been [illegible]. See source. [illegible] for [illegible] information.--[illegible]]

131 contact, barter, and intermarriage with the *Ona;* between Brecknock Peninsula and the western end of Beagle Channel, with the *Alacaluf.*

101 **Names and divisions.**—The *Yahgan* called themselves *Yámana,* "human beings." They were first called *Yahgan* by the Rev. Thomas Bridges, from Yahga, the native name for the Murray Narrows region, a locality much frequented by some of them. *Yámana* would be preferable for anthropological use, but *Yahgan* is so well established in the literature that we are retaining it in the Handbook. The *Yahgan* recognized five subdivisions, each with its own aboriginal name: a southern, an eastern, a central, a western, and a southwestern (Koppers, 1927, p. 468; 1928 a, pp. 158–159; Gusinde, 1937, pp. 199–208; Lothrop, 1928, p. 120, map opp. p. 24). These subdivisions differed more dialectically than culturally.

114 **History of investigation.**—The *Yahgan* were first visited and described by Jacques L'Hermite in 1624. The next important landmark was the *Beagle* expeditions under Admiral Robert Fitz-Roy in 1829–32. It is, however, to the Rev. Thomas Bridges that we are indebted for our first intimate insight into *Yahgan* culture and linguistics. The Italo-Argentinian expedition in 1882 and the French Cape Horn expedition in 1882–83 made important advances in *Yahgan* somatology but were largely indebted to Bridges for their cultural and linguistic data. The field studies of Fathers Martin Gusinde in 1919–23 and Wilhelm Koppers in 1922 served to complete the picture, particularly as regards social and magico-religious life. Samuel K. Lothrop's field study of 1924–25 (1928, 1932 a) rounded out our knowledge of *Yahgan* technology. The only remaining gap is that of archeology, a gap in part filled by Vignati and by Lothrop, and more recently by Junius Bird in 1932–37.

The more valuable first-hand sources on the *Yahgan* from 1624 to 1917 are: Bove (1882, 1883: the two identical on culture); T. Bridges (1866, 1886, 1892, 1893); Dabbene (1911); Despard (1863); C. W. Furlong (1909, 1917 a); Hyades (1885); Hyades and Deniker (1891: of basic importance); Lovisato (1883, 1885); South American Missionary Magazine (1854–); Spegazzini (1882). The anthropological information given in these and the other sources up to 1917 is analyzed and made available in Cooper (1917). Since 1917, the most important contributions are: Lothrop (1928), for technology; Koppers (1924) and especially Gusinde (1937), for all phases of culture, particularly the social and religious ones; Von Hornbostel (1936), for music; T. Bridges (1933), for language and general culture; Vignati (1927) and Bird (1938), for archeology; Gusinde (1939), for physical anthropology.

Gusinde's exhaustive monograph, "Die Yamana" (1937), based mostly on his and Koppers' field studies and in part on a thorough combing of the literature, gives nearly all that is known of *Yahgan*

114 culture. If this large and expensive monograph is not accessible, the following more important papers may be consulted: Gusinde (1921–22, 1924, 1925 a, 1925 e, 1926 a, 1926 c, 1927, 1928 b, 1929); Koppers (1925 a, 1925 b, 1926 a, 1926 b, 1927, 1928 a, 1928 b).

For bibliographies of the *Yahgan* see: Cooper (1917), for sources, with comments on each, to 1917; Lothrop (1928), for sources from 1917 to 1928; Gusinde (1937), for selected and added sources, and for evaluations (pp. 48–161) of the publications of the more important first-hand observers.

19 **Language.**—The *Yahgan* language with its five mutually intelligible dialects constitutes a distinct linguistic family, with no known relationship to any other. The elder Bridges' *Yámana*-English dic- [114] tionary, the one completed in 1879, contains about 23,000 words, a carefully restricted, not a padded, list, as he himself emphasized (1933, p. xvii). *Yahgan*, in contrast to *Ona*, is markedly euphonic. There were no words for numerals beyond three, and none for fractions.

161 **Population.**—According to our first dependable estimates, the *Yahgan* population, in the third quarter of the 19th century, totaled between 2,500 and 3,000 souls. In 1881 a sharp decline set in. By 1884 numbers had dwindled to about 1,000; by 1886, to 400; by 1890, to 200; by 1902, to 130; by 1913, to less than 100; by 1933 to 40. The [164] immediate causes of the sudden drop in the eighties were the respiratory diseases and a severe outbreak of measles in 1884, followed by epidemics of typhoid, whooping-cough, and smallpox. Syphilis does not appear to have played an important role. Contributory, or rather [177] basic predisposing, factors were, it seems, the then introduced European ways of life, especially the clothing, but also the food, alcoholic beverages, and type of shelter and work.

CULTURE

SUBSISTENCE ACTIVITIES

231 **Foods.**—The *Yahgan* had no domesticated plants, and no domesti- [84] cated animals except the dog. Whether the earlier pre-Columbian and post-Columbian *Yahgan* had dogs is uncertain. No bones of dogs have been found in early archeological sites in *Yahgan* or other Fuegian territory. The earlier explorers,—L'Hermite, 1624; d'Arquistade, 1715—make no mention of the dog in their descriptions of *Yahgan* culture, as none is made of it among the *Alacaluf* by the 15 accounts of them prior to Narbrough's of 1670. The dog was first recorded among the *Yahgan* in 1823 by James Weddell; it is recorded consistently thereafter by later observers (Cooper, 1917, pp. [262] 186–187). Dogs were not eaten.

262 Lothrop (1928, p. 33) rated the relative importance in the *Yahgan* dietary of their foods as follows: (1) Easily of first importance, mussels; (2) next, seals, and fish of many kinds; (3) next, porpoises, gulls, and bird eggs; (4) then, whales, limpets, crabs, sea urchins, geese, penguins, cormorants; (5) last and least, otter (chiefly in the west), guanaco (only in the east), conchs, ducks, berries (especially wild black currants). The fungi eaten were those growing on trees; those growing on the ground were not eaten. Some wild celery and wild parsnips and two varieties of cress and young shoots of tussock grass were also eaten. Foxes were eaten only in famine as a last [263] resort. Salt was not used.

225 *Hunting.*—Seals were hunted with spear or harpoon from canoes or from land (pl. 36), or killed with clubs. Whales were occasionally hunted in the open sea with spear or harpoon; stranded or dead whales were eagerly exploited. Dogs helped in otter and fox hunting. 223 Cormorants were taken at night by torchlight with clubs; also with a pronged wooden gorge hook. Birds were taken with pole snares (fig. 11, *d*) and with single or multiple tether snares of sinew or whalebone. No lifting pole snares, deadfalls, or pitfalls are reported.

226 *Fishing and sea-food gathering.*—Mussels were gathered by hand; limpets, with a flat-ended stick; sea urchins, with a four-pronged wooden fork; crabs and other Crustacea, with a harpoon or a three-pronged stick. For taking sea food, the *Yahgan* also used a spear with two diverging shanks, or two to four spears lashed together. Women fished with a kelp-stem or braided whale-sinew line, that had a slipknot of whalebone or of quill at the end, instead of a hook, to hold the bait; slowly drawing the fish to the surface, they would grab it by hand. Fishhooks were probably lacking. Weirs of branches or stakes were used. True fish nets were absent. The nearest approach thereto was a small basket attached to the end of a pole and used as a sort of dip net for diminutive fish.

251 *Food storage.*—Limited quantities of dried tree fungi were stored; so too was oil, especially whale and seal oil.

415 *Food preparation and eating.*—Large mussel shells were used for [258] melting fat and holding grease. Water was heated and grease melted by throwing hot stones into them, but there is no record of stone boiling proper.

Shells of large mussels were sometimes used as plates; shells or bark buckets as cups; hollow bird bones or reeds as drinking tubes.

CAMPS AND SHELTERS

361 621 There were no permanent villages. Certain groups of natives related apparently by blood and marriage frequented and occupied more or less fixed separate localities within the respective five sub-

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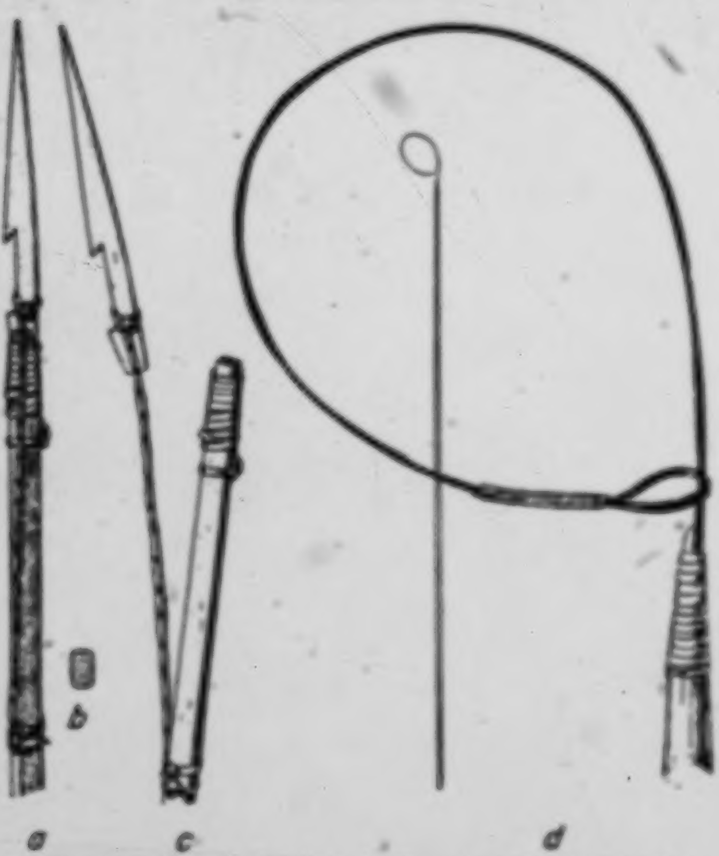

FIGURE 11.—Yahgan harpoon and pole snare. a, Harpoon assembled for casting; b, cross section of harpoon shaft; c, position when dragging through water (length of harpoon head 10 in., or 25.5 cm.); d, two views of bird snare (diameter of loop 6½ in., or 16.5 cm.). (After Lothrop, 1928, figs. 22, 27.)

361
621 divisional areas. Apart from initiation and other social or religious functions, which brought larger numbers together temporarily in a common camp, each biological family or small group of two or three families tended to camp apart, more frequently in the same shelter.

342 The two chief forms of family shelter were the beehive hut and the conical hut. The beehive or domed hut, the more common form, especially in the west, was circular or elliptical in ground plan, made of a framework of flexible sticks bent over dome-shape and fastened together, and covered with grass, ferns, branches, bark, skins, or anything at hand (pl. 22, b). The conical hut, more fre-

342 quently used toward the east, was tipi-form, with a framework of stiff stout saplings or tree trunks.

The ground in the interior of the hut was often, but not always, scooped out, to a depth of 2, 3, or more feet (0.6 to 1 m.) beneath the outside ground level, and was usually covered with a little grass or [354] some branches. The fire was made in the center. The huts had one door, facing the sea; or else two doors, one facing the sea, the other being opposite.

172 342 Archeological stratification in the *Yahgan* area of Navarino Island shows an earlier culture with shelters like those still used by the *Alacaluf*, oval in ground plan, having two entrances, and without scooped-out pits; and a later one with circular shelters having one entrance, and with pits 13 to 18 feet (4 to 6 m.) in diameter, scooped out in some cases to a depth of more than 3 feet (1 m.) (Bird, 1938, p. 261). The two historic types of *Yahgan* wigwam, oval and circular, unpitted and pitted, may thus represent two chronologically distinct cultures.

342 Larger and more substantial huts were built for initiation rites (q. v., infra); sometimes very small ones, for the use of children. The *Yahgan* also at times used caves or made a very rude shelter of a few branches tied together or stuck in the ground.

177 342 At the time of Lothrop's visit in 1924-25, practically all the then surviving *Yahgan* were accustomed to pass the winter months at Puerto Mejillones and Porto Piedra, on Navarino Island, in huts poorly constructed of ill-fitting boards (Lothrop, 1928, p. 130). Lothrop (1928, p. 131) considers the use of the wing of a large bird for [239] sweeping out the shelter to have probably been the result of missionary [359] influence.

DRESS AND ORNAMENTS

291 *Clothing*.—The chief garment, for men and women, was a small cape, of seal, sea-otter, or fox skin, sometimes of two or more skins sewn together—occasionally of bird skins—worn with the fur outside, covering the shoulder and breast or reaching to the waist, and held in place by a string across the chest. It was commonly shifted outdoors over the windward shoulder. Very frequently it was left off entirely. The women rarely if ever went without a small triangular pubic covering of bird skin or hide, held in place by a string attached to each upper corner and encircling the waist (pl. 22, *f*). No head covering was worn. Usually the *Yahgan* went barefoot, but sometimes when traveling or hunting on land they wore rather crudely made moccasins (fig. 19), resembling closely the *Ona* ones in pattern, of sealskin, with the hair outside, and stuffed inside with grass (cf. Lothrop, 1928, p. 156, photo). The eastern *Yahgan*, when hunting guanaco in winter, sometimes wore guanaco skin leggings, like the *Ona*, from whom they

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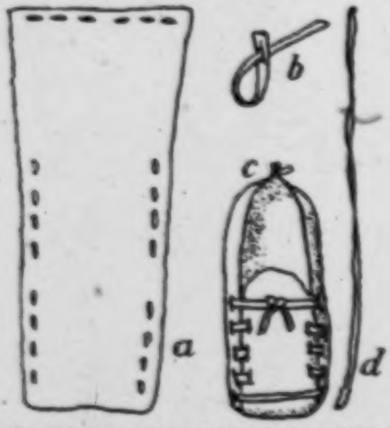

FIGURE 12.—Yahgan moccasin. (After Lothrop, 1928, fig. 48.)

291 probably borrowed them. The *Yahgan* occasionally used a rude fingerless working glove of hide. The clothing of the *Yahgan* seems to us utterly inadequate, given the climatic conditions—temperatures commonly around and well below freezing point in winter, high winds, frequent snow, hail, sleet, and cold rain—but in view of the seeming [illegible] role played in their decline by introduced European clothing and their relative good health prior thereto, perhaps their clothing was reasonably well adapted to the environment.

302 **Hairdressing and depilation.**—The hair was worn loose, not in braids, and was often banged. Sometimes a sort of tonsure was worn. A sharp-edged mussel shell was used to cut the hair. For [illegible] combing the hair, more commonly the jawbone of a porpoise or otter, or a toothed comb made of whalebone, was used; sometimes, a brush comb made of a bundle of roots (Outes and Bruch, 1910, p. 128) or of quills (Gusinde, 1937, p. 423). Depilation, with two mussel shells as tweezers, of all face and body hair was practically universal, for both sexes.

304 **Scarification.**—Scarification was practiced as a mourning observance and tattooing as an initiation rite (Gusinde, 1937, p. 863), but neither for ordinary decorative purposes. There was no head deformation, no ear, lip, or septum piercing, no body mutilation of any other kind.

302 **Painting.**—Smearing the head and body with grease or oil was as much protective as decorative. Face and body painting was common, sometimes with use of a small spatula. Only three colors—[illegible] red, black, and white—were used. Red was derived from burnt earth, black from charcoal, and white from clay. Red symbolized peace;

Red Symbolized Peace;
302 white, war and ritual; black, mourning. Designs were very simple,
[822] confined to lines, dots, and, less commonly, circles.

Ornaments.—Personal adornments were: necklaces, of sections of
301 bird leg bones strung on braided sinew, of strung punched shells
237 (*Photinula violacea*), or of frapped hanks of braided sinew, often colored red; bone or shell pendants, sometimes attached to the necklaces; and wristlets and anklets of sinew and hide. Feather diadems and bird-skin, feather, or down-ornamented fillets or forehead caps were also used.

TRANSPORTATION

501 Canoes.—Travel by the *Yahgan* was almost entirely by water. Their earlier sole form of watercraft was the built-up bark canoe, of a crescent or gondola shape that characterizes other craft well up the west coast of South America to Perú; the plank boat, the *Araucanian* dugout, the seal-hide float, and the double-ended reed balsa were absent (Lothrop, 1932 a, pp. 253–54).

The *Yahgan* canoe (pls. 34, 35) was made of three strips of beech bark, one-half inch to more than an inch (1.2 to 2.5 cm.) thick, which ordinarily formed the bottom and two sides respectively. Average length was about 15 feet (5 m.), with a range from about 12 to 20 feet (4 to 7 m.); gunwale to gunwale width in center, about 3 feet (1 m.); depth in center, about 2 feet (0.6 m.). The bark, taken only
396 from the evergreen beech (*Nothofagus betuloides*), was stripped off in the spring, when the sap was running. In removing the bark from the tree, the natives used a bone chisel or mussel-shell knife to cut it and a bone barking tool to strip it, and in ascending the tree held themselves thereto with a strong rawhide thong. After smoothing the bark on both sides with a small chisel, they cut it into three cigar-shaped pieces. These pieces were then sewn together with whalebone or with shreddings of warmed saplings, the seams being wadded with the stringy seams of wild celery grass or with moss mixed with mud. The gunwales were next lashed on. The ribs, of split Winter's bark, were then fitted in and locked in place under the gunwales. The thwarts, usually five or six, of hardwood, were inserted and lashed to the gunwale.

501 The fireplace was set amidships. The paddle was in one piece with a long lanceolate blade and short round-section handle without crosspiece or other grip. The *Yahgan* canoe leaked much; the cylindrical bailers (pl. 32, *e*) were usually of bark or sealskin. Sealskin thongs
[883] and braided grass ropes were used as mooring lines. The construction and repair of the canoe were the man's task; but its management, in-
[462] cluding paddling and mooring off shore in a kelp bed, were the woman's. In a sense, she was mistress of the canoe, with its hearth and ever-lighted fire. In a favorable wind a crude sail, made of a sealskin or

501 of several skins sewn together, was sometimes set up—a practice whose origin, native or European, is uncertain. (For details on manufacture and use of canoe, cf.: Lothrop, 1928, pp. 143–145; 1932 a, pp. 251–253; Gusinde, 1937, pp. 436–457.)

501 177 After about 1880 the *Yahgan* began to give up their traditional bark canoes, and to adopt the dugout. Still later, prior to Lothrop's visit in 1924–25, the dugout had been entirely superseded by the dory, of European type and origin.

The *Yahgan* never adopted the plank boat from their *Alacaluf* neighbors and never used rafts or skin-covered watercraft, so far as our records reveal.

MANUFACTURES

172 Pottery, weaving, and metallurgy were entirely absent; no traces of pottery have been discovered archeologically in *Yahgan* territory.

283 **String-making and sewing.**—Plant fibers, plain, shredded, or braided, were used in basket making, canoe sewing, and for mooring lines, respectively; braided whale sinew, for necklaces, fishing lines, and tool and weapon lashings; braided guanaco sinew, for bowstrings; whalebone, in sewing canoes and for bird snares and fishline nooses; seal-hide thongs, for tool and weapon lashings, harpoon lines, basket [812] handles, mooring lines, and bowstrings. Awls were made of bone and wood, unhafted. The drill was lacking.

285 **Basketry.**—Four techniques in basket making were in use: (1) Simple half-hitch coiled, the commonest type (fig. 13, *top*); (2) twisted half-hitch coiled, rarer (fig. 13, *center*); (3) knotted half-hitch coiled, not common (fig. 13, *bottom*); (4) a sort of wrapped type. The first three were of excellent craftsmanship; the last, very crudely woven, and used only as a dip net for catching very small fish. The material for all four was a rush (*Juncus magellanicus*). The coiled baskets were more or less oblong-spheroid in shape, and had a carrying handle of thong or plaited rush (pl. 22, *c*).

281 **Skin dressing.**—No process of dressing proper is reported. Sealskins were stretched on the ground, covered with grass and moss, and left so for a while, to help dehair them. Drying frames were appar- [812] ently used. The scraper consisted of a mussel shell lashed to a cylindrical stone haft. The *Yahgan* made thongs flexible by drawing them through their teeth or by chewing them.

324 **Stoneworking.**—Little use of worked stone was made except for arrowheads and, rarely, scrapers. The workmanship was crude. [192] Archeologically, there are some traces of stone pecking and polishing (Lothrop, 1928, p. 203; cf. Bird, 1938).

415 **Containers.**—Cylindrical buckets (pl. 22, *e*), of *Nothofagus betuloides* bark, for carrying and holding drinking water and for bailing, were made by the women, with the use of a barking tool dif-

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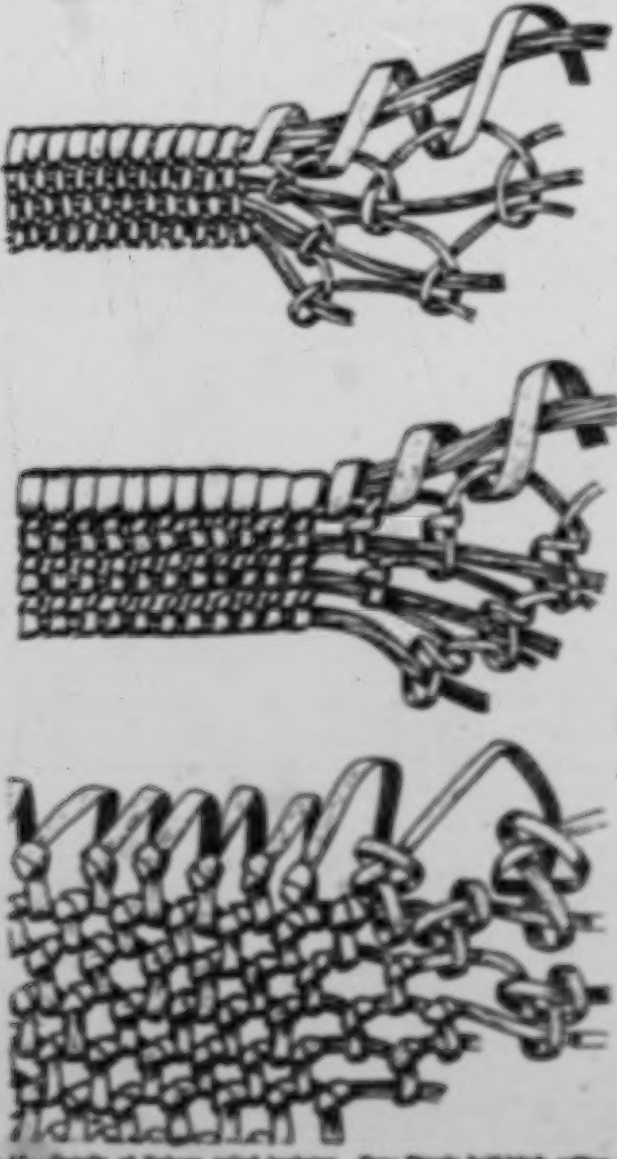

FIGURE 11.—Details of Yahgan coiled basketry. Top: Simple half-hitch coiling (height 1 in., or 2.5 cm.). Center: Twisted half-hitch coiling (height 1 in., or 2.5 cm.). Bottom: Knotted half-hitch coiling (height 2 in., or 5 cm.). (After Lothrop, 1928, figs. 61, 62, 63.)

415 ferent from the man's. Among other more used containers were: pouches of seal or penguin skin for holding small objects; bladders or windpipes of seals or porpoises for holding ocher and firestones; crops of geese and stomachs of seals for holding oil. (Cf. others in Lothrop, 1928, p. 122.)

412 **Tools.**—These have mostly been dealt with incidentally in the preceding sections. The hafted mussel-shell scraper, mentioned above under "Skin dressing," was also the common knife. Stone-headed daggers or knives were used by the earlier *Yahgan* (Cooper, 1917, p. 207). The stone celt or ax was lacking. Wedges were of bone; arrow polishers, of a bit of pumice.

411 **Weapons.**—The characteristic weapons used by the *Yahgan* both in hunting and in fighting were the spear and harpoon (fig. 11, *a-c*), the club, and the sling. The bow and arrow, in contrast to *Ona* usage, occupied a very subordinate position.

The spear shaft was quadrangular, hexagonal, octagonal, or decagonal in section, from 8 feet (2.5 m.) or less to 13 feet (4 m.) long; the shank, ordinarily of bone, with unilateral or bilateral single or serrate barbs and with notched tang, lashed to the split or slotted end of the shaft. The atlatl was absent. The harpoon, without toggle, was merely a spear with a detachable shank tied by a thong to the shaft. The club was a plain straight heavy stick. The cradle of the sling was of hide, the lines of braided whale gut.

Yahgan bows, arrows, and quivers closely resembled those of the *Ona*—a curved self bow, ranging from about 3 to 4 feet long, with string of seal hide or of braided seal, whale, or guanaco sinew; the arrow, without foreshaft, and with triangular stemmed and barbed head of stone, bone, or, more recently, glass; the quiver, rectangular, of skin, or tubular, of bark. Arrow poisoning was absent. Both archeological and ethnological evidence suggests that the *Yahgan* [illegible] most likely acquired the bow and arrow after their arrival in their historic habitat, from the *Ona*. (Cf. Bird, 1938, pp. 261-262; Cooper, 1917, pp. 211-212.)

372 **Fire making and illumination.**—The only method of fire making was by percussion with flint and pyrites, bird down or dried fungus serving as tinder. Fire was carried around in the canoe on a hearth of earth, shell, or stones. Two-pronged tongs were in use. Bark torches provided illumination. Fire was employed not only for cooking, heating, and lighting, but also for signaling, straightening arrow and spear shafts, bending canoe ribs, felling trees, preparing bark for canoes and material for baskets, and other purposes.

SOCIAL AND POLITICAL LIFE

584 **Marriage and the family.**—The sexes were kept separate after about the age of 7 and were warned by their elders against sexual liber-

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536 tion. Intercourse between the unmarried was disapproved, but breaches of the code were not infrequent. Marriage between blood 582 relatives, however distant, was in theory taboo; in practice, the prohibition included half-siblings, uncle and niece, aunt and nephew, first cousins, both parallel and cross, and seemingly extended somewhat beyond these limits. Since near relatives commonly lived near one another, marriages tended to be locally exogamous. Marriages with mates from far distant localities, especially outside one's own of the five dialectic groups, were disliked and infrequent. Marriage with a mother and her daughter was disapproved, but not so strongly as marriage with near blood-kin. Sponsors were barred from marrying their respective candidates of the Ciéxaus[1] initiation rite.

584 583 Choice of mate was ordinarily free on the part both of the boy and of the girl, and appears to have been based largely on mutual affection and regard. Gifts from the groom to the bride's father were given and expected, as were also certain services before and after marriage. But a bride-price as stipulated by or haggled for by the father was absent. Bride capture or stealing, if it occurred, must have been very rare.

582 Boys and girls did not marry until they had passed through the required Ciéxaus initiation. Gusinde (1937, p. 633) estimates the more common chronological ages of first marriages as about 17 to 19 years for boys, and 15 to 18 for girls.

Monogamy was by far the most prevalent form of marriage. Poly- 592 andry did not occur. Polygyny was permitted, but was uncommon. A few men had two wives, more commonly sisters; cases of three wives, 567 if they occurred, must have been very rare. On the death of a man's wife, he had a certain marriage claim to her unmarried sister. On the death of a woman's husband, she frequently became, and under certain circumstances was expected or obliged to become, the wife of his oldest surviving brother, especially his unmarried brother, unless she married another man. This custom (the levirate) was, from the native point of view, primarily an obligation of the father's brother to be responsible for his nephews and nieces, a responsibility that lay on the uncle even though his brother's widow married another man. A surviving married brother was not entirely free to marry the widow, as his own wife might object.

585 The chief wedding rite consisted in painting the cheeks of the couple with three red parallel horizontal lines. These were worn and renewed for a week, during which time there were feasting and dancing, and at the end of which the couple went off together in their own canoe. 591 Customarily, they remained with the bride's people for a few months,

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[1] C has the sound of English [illegible], x of [illegible].

591 after which they would usually go for good to the groom's kin. Thus,
localized groups of kin tended to be paternal.

604 After marriage the husband's paternal uncle and the wife's ma-
ternal aunt took particular interest in them, superseding in large
measure their respective parents. Children-in-law were expected to
606 look after their parents-in-law in sickness or other needs. Children-
in-law observed a number of avoidances regarding their parents-in-
law: greeting their parents-in-law, speaking to them or breaking in
on their conversation with remarks, looking at them, and sitting down
beside them were all taboo. When in the same hut with their
parents-in-law, they turned their sides or backs on them. A year or
so after marriage, the restrictions between daughter-in-law and
mother-in-law were partly, but never wholly, relaxed; those between
son-in-law and father-in-law lasted through life. On visits of the
father-in-law to his daughter, he and his son-in-law communicated
wishes and news through the daughter and wife or by indirect
discourse.

562 The man was, in theory, considered the head of the family, with
593 authority to rule. Actually, his authority was very far from abso-
lute, and the woman was largely her own mistress, particularly in
such provinces of her own as child rearing, food gathering, and
canoe managing. Some men domineered over their wives, but not a
few husbands were under the thumbs of their spouses. Some hus-
bands were cruel, but if so they ran afoul of the wife's kin. More
generally, woman's position both in the family and in the community
seemed a respected one, not that of a drudge, slave, or inferior being,
and she enjoyed a fairly high degree of freedom and independence.

684 Adultery was disapproved by the *Yahgan* code, but apparently
839 the code suffered appreciable infringement in practice. Adultery
on the wife's part was, if discovered, punished by the husband with
sound beatings, very rarely with death. Public opinion disapproved
of her behavior. Adultery on the husband's part also gave rise to
domestic battles in which the husband sometimes suffered severe
treatment at his offended wife's hands. Jealousy on the part of both
husband and wife was common. Wife lending was absent. There
[illegible] was no professional prostitution; a woman, married or unmarried,
of markedly loose character was looked down upon.

586 Separation and divorce were fairly frequent, but were not lightly
resorted to. The most common cause appears to have been cruel
treatment of the wife by the husband, though there were other causes
such as marked laziness, negligence, or crabbedness on the part of the
[illegible] wife. In case the wife became incapacitated through illness or age,
the man could, and, it seems, more commonly did, take to himself a
Second Wife.

586 second wife. Desertion was more frequent on the man's part than on the woman's.

888 The aged were, according to all dependable evidence, usually respected, well treated, and well cared for. Neither abandonment or killing of the aged was ordinarily practiced but may have occurred in exceptional cases.

621 Political life.—Over and above the biological family there was no closely organized larger group or constituted authority. There were no sibs, secret or other societies, or social classes, and no chiefs or ruling group or caste of any kind. Each biological family was for most practical purposes a sovereign political unit. The sense of individual independence was deep. No man took or brooked orders
555 or dictation from any other. However, aggressive individuals of personal force and strength, especially if they had powerful kin backing, at times dominated. Older men of recognized intelligence and integrity exercised considerable moral influence.

612 The next group to the biological family was the kinship group, mostly a paternal one. The members gave mutual aid where called for, particularly in feuds and in blood-revenge activities. The kinship group, owing to common patrilocal residence, was partly, but not fully localized.

619 The five regional divisions of the *Yahgan*, each with its distinctive dialect, had very slight political significance. Members of one division were usually chary of trespassing, at least for long, upon the territory of any other division, unless there were a recognized good cause, such as grave shortage of food, partaking of a stranded whale, trading, gathering canoe bark or fire-making materials.

621 Each of the five dialectic regions was broken up into local groups, each of which appears to have been composed, mostly at least, of members related by blood or marriage (Koppers, 1926 b, p. 4). Each such local group had its own territory—that of Ushuaia, for instance, occupied 20 miles (32 km.) of coast line on Beagle Channel—and its own name derived from its locality. Like the dialectic groups,
[628] these local groups had no chiefs. The local group's chief function was that of holding the *čiéxaus* initiation rite. The leader chosen
[881] therefor had authority only so long as the rite lasted. As the *čiéxaus* rite was an educational device contributing greatly to social conformity and solidarity, the local group's political function was chiefly an indirect pedagogical one. Loyalty to fellow members of a local group existed, but was not so strong as that to one's own kinship group.

695 There was no organized process of judicial procedure. In case of murder, the victim's kin took blood revenge on the murderer
[682] or his kin, or settled with him or them by composition. At times such kinship feuds led to a sort of pitched battle, in which slings,

629 clubs, fists, and so forth were used freely, with no holds barred, but [726] grave wounds or deaths were uncommon. Organized warfare did not exist, and the *Yahgan* had no defensive weapons. The weapons used in their feuds were primarily made for, and adapted to, hunting.

Social relations within and between the dialectic and local groups appear to have been normally irenic, but violence and bloodshed were not infrequent. The friends of fighting parties usually intervened, both by persuasion and by force, to restore peace. A murder [682] was strongly condemned, and the murderer often became an outcast. Bridges found 20 cases of homicide between 1871 and 1884—an annual rate per population something like 10 times as high as that [illegible] of the United States. Mercy killings occurred for the purpose of putting an end to the sufferings of the hopelessly ill. Human [illegible] sacrifice was unknown; so too was premeditated suicide.

266 The evidence that the *Yahgan* practiced no form of cannibalism—gastronomic, famine, ritual, or other—is convincing beyond all reasonable doubt. They would not even eat animals suspected of devouring human flesh.

ECONOMIC LIFE

423 619 **Ownership.**—The *Yahgan* resented and avenged exploitative trespass upon their tribal territory or attempted occupation of any part thereof by non-*Yahgan*, Indian or White. So, too, did members of any one of the five dialectic groups (Gusinde, 1937, pp. 364-365) or, according to Koppers (1928 b, p. 170), of any one of the numerous local groups, by nonmembers. Since these local groups seemingly were chiefly kinship groups (cf. supra, Political Life), the *Yahgan* land-tenure system resembled the family-hunting-ground system. There was no exclusive tenure by kinship circles as such, by biological families, or by individuals.

Members of one dialectic or local group could, however, exploit the territory of other groups to secure food in grave shortage, to feast on a stranded whale, and to gather firestones and suitable canoe bark, which were found only in certain parts of the *Yahgan* territory. 422 Ownership of personal property, such as weapons, clothing, adornments, and baskets, was vested in the individual. Women and children, as well as men, had well-recognized rights to such things. The ownership of certain other things—food, hut, canoe—appears to have been vested in the biological family.

[772] Food was looked upon as the property and gift of the Supreme Being; wasting it was disrespectful to Him.

439 Title to personal property was acquired through occupation, labor, donation, and barter. Barter took two forms: plain, or exchange of goods for goods; and by exchange of presents. There was no cur-

435 Nearly all work was done for hand-to-mouth existence. There was little concern for the future, and practically none for amassing wealth.

ETIQUETTE

576 Intimate friends, men or women, on meeting greeted each other with vigorous hugs and with wordless vocalizations of joy. When a guest entered a hut, he crouched by the fire without manifesting curiosity; only after a while did he begin to talk and give the news, during which time he was not interrupted. Hospitality was generously given, 574 especially to kin and friends. The guest did not verbally express his thanks for the food received. If he were from a distant place, his host presented him with some gifts on his departure. A person leaving the hut of a friend used the expression: "I will go."

576 On paying a visit it was proper, especially for women and children, to paint the face with a red or white streak or paint up otherwise. A graduate from the čiéxaus initiation rite on approaching his sponsor was expected to paint himself or herself; to go without such painting 264 was disrespectful. It was bad form to show too much eagerness in eating; a gluttonous eater was looked down upon. Belching and expec- 515 torating in the presence of others was not disapproved. Natural needs were attended to at a good distance from the hut.

834 When several families came together to camp, the respective sexes kept more or less to themselves. A man would not enter a hut where a woman was inside alone, and vice versa.

551 It was very bad form to mention or address a person, even a child, by his or her own name. In conversation the names of others were not mentioned, roundabout descriptive phrases being used instead. 192 The *Yahgan* had no expressions corresponding to our cursing or profanity.

The foregoing were some of the more significant rules of *Yahgan* etiquette, details of which are given at length by Gusinde (1937, pp. 1000-1015).

WARFARE AND HOSTILITIES

720 These have been dealt with supra under Social and Political Life.

LIFE CYCLE

842 Childbirth and infancy.—There was clear awareness of the dependence of conception on coitus. Desire for children was marked. 847 In some cases abortion—by mechanical, not medicinal, means—was resorted to by unmarried mothers. A badly deformed or defective newborn infant was allowed to die through neglect. Delivery took 844 place inside the hut, the father going outside and leaving the mother with women assistants. Very shortly after birth, the mother bathed

herself and the infant in the sea, and the mother usually took sea baths for some days thereafter. For some time before and after a child's birth the mother and father observed certain food and other taboos. A form of couvade obtained, especially in the case of a first child, the father remaining quiet in the hut and abstaining from most work for some days while relatives and friends supplied the family with necessities. The placenta was burned; the navel cord, dried and kept.

Marital relations were avoided for about 6 weeks or more after delivery. Weaning ordinarily took place after 18 to 24 months, but in some cases not until a good deal later. The child was commonly named after its birthplace.

Education.—Corporal punishment was rare. Severe correction was ordinarily verbal, or else took the form of sending the child out of the hut for the day. A great deal of moralizing counsel was given the growing child by elders, counsel not always received with eager alertness by him, to judge from one of the instructions stressed in the initiation rite, viz, to listen attentively to what his elders told him even when the sermon was long drawn out. The sexes were kept separated after about the 7th year.

Girls' puberty observances.—At her first menses, the girl fasted, eating little or nothing, for 3 days. Both cheeks from the eyes down were painted with red radiating streaks. Older women gave her much moral counsel. On the 6th or 10th day she bathed and washed in the sea. At the end, a feast was given to all the members of the group.

The ciexaus initiation rite.—This rite (Koppers, 1924, pp. 45-84; Gusinde, 1937, pp. 805-961), for both boys and girls together, and actively participated in by all those elders who had previously been initiated, was the most important native ceremony, the focal point, in a sense, of their religious life, a dynamic stay of social order and solidarity. It was likewise an intensive training course, constituting the climactic event in the native educational system.

This initiation rite, the ciexaus, under the auspices, it seems, of the local group, rather than of the dialectic division or whole Yahgan tribe, was held not at stated seasons or intervals, but as need or occasion arose, yearly or more or less often than yearly. It could last from several days to several months. The candidates were boys and girls who had reached puberty.

The chosen officials in charge of the rite were a leader, a monitor, and guards. A special large hut, of oval beehive or conical construction, was used, with simple decorations in the way of red, white, and black painting on the framework inside and similarly painted oblong boards hung up. Each participant wore a special diademlike feather

437 [438] [804] [486] rency of any kind, and no weights or measures. Barter was carried on among the *Yahgan* themselves, with the *Ona* and *Alacaluf*, and with the Whites. Barter by exchange of presents was common; a gift was made, regardless often of the wishes of the recipient, who could not refuse it without affronting the giver, and who was definitely expected to give something in return.

968 428 Inheritance played a very minor role. Much or most of the deceased's property was burnt with the body. The person's dog fell to the oldest son or other near relative or acquaintance. Some of the more valuable or useful property might be bartered or given away to distant persons. Such burning, bartering, and giving away were intended to take from sight what would cause sorrow to the survivors by reminding them of the beloved departed, and to signify the survivors' desire not to profit by the death.

685 Stealing was considered decidedly reprehensible; but thefts actually occurred, even among their own people, not as daily matters, so to speak, but it would seem, not very uncommonly. A habitual thief, who failed to reform, was in the end boycotted—a severe punishment under *Yahgan* living conditions.

594 Generous sharing of food with kin and friends was the rule. Hospitality was extended as a matter of course.

46 *Labor.*—Neither wage nor slave labor existed. There was a little, but not much, labor in common. Each family was a relatively independent economic unit. The division of labor was almost exclusively a sexual one, with no organized or unorganized craftsmen making their living by specialized trades.

462 The man's task was to hunt marine mammals, otter, guanaco, and birds, to make his own weapons, to build and repair the canoe, to do the harder work in hut building. The woman's task was to care for the younger children, to cook, tend the fire and look after the hut generally, to paddle and have general management of the canoe in which the family spent so much of its time, to do all the skinwork and leatherwork, such as preparing skins, sewing clothing, and making skin bags and pouches, to make baskets, and, last but not least, to collect mussels, much of the fish and other sea food, eggs, fungi, and berries. [822] Since mussels were the chief food resource, the woman's part as provider was an extremely important one.

[822] Probably her crucial role as food provider had a good deal to do with her relatively high status in *Yahgan* society. Certain tasks fell to man and woman jointly, such as building the hut, and hunting from the canoe, when the man did the killing while the woman maneuvered the craft. All in all, if we take into account *Yahgan* living conditions, although the list of woman's tasks is longer than that of the man's, actually the sexual division of labor appears to have been a fairly equitable one.

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881 head band and had a special painted staff. To each candidate were assigned sponsors, one or two men and a woman to the boy, one or two women and a man to the girl.

The candidates were subjected to certain endurance restrictions: little sleep, food, and drink, hard work, a daily bath in cold sea water, cross-legged posture during much of the time. They had to drink through a hollow bird bone. The boys were given a sort of temporary tattoo. Much vocational instruction was given, and particularly an elaborate moral instruction in the native code, with very concrete counsels on the obligations of altruistic behavior, respect for the aged, peaceableness, industry, not spreading scandals or carrying tales, and so forth. This moral instruction was given by the mentor, sponsors, 776 and other elders, as the will of Watauinéiwa, the Supreme Being, who saw everything and who would punish delinquents with shortened life and with the death of their children. Yetáite also, the chief evil spirit, would harm them if they did wrong.

The ritual consisted otherwise mostly of dances and of songs peculiar to it. Toward the end, the sponsors gave each candidate a basket, a bird-bone drinking tube, and a scratching-stick. The rite ended with a mock battle between the men and women, and with a feast.

884 Only those who had gone through the *čiéxaus* rite were considered full-fledged members of the tribe, and were told the whole mythological complex of the Yoálox brothers and their sister. And only twice-initiated boys could take part in the kina rite (cf. infra under Religion), which was often held just after the *čiéxaus*.

76 **Death and burial.**—Mourning was expressed by fasting, body painting, gashing of the breast with sharp stones, and a special mourning dirge accompanied by a mourning speech. Angry complaints were directed to Watauinéiwa for letting the person die. A general mourning rite in which the men and women painted themselves, wept, hurled complaints at Watauinéiwa, and engaged in a mock battle, the men with clubs and the women with paddles, was also held.

The more common form of disposal of the body, up until recent times, was cremation—lest foxes, rats, or dogs should eat the body, as the natives said. The dead person's personal property, or most of it, was burned with the body. In some cases, especially of children, the body was buried in a kitchen midden. The burial spot was avoided as a camping place, for several years where the deceased was an adult. The name of the dead was never spoken.

775 **Future life.**—The keshpix (késpix), or soul, flew east, but exactly whither was not known. Nor was it known what its fate was, happy or unhappy, nor whether such fate was at all dependent on moral behavior on earth.

ESTHETIC AND RECREATIONAL ACTIVITIES

519 A great deal of *Yahgan* recreation was incidental to the initiation and other rites and through the feasting and social activities that accompanied set events such as marriages, or chance meetings of families at camps, or larger gatherings of longer duration occasioned by treasure trove in the shape of stranded whale. In connection with some of even the more solemn rites there were intervals of free play relieving tensions developed during the more serious phases of the rites.

276 [513] Narcotics were totally lacking. No alcoholic or other intoxicating beverages were made or used by the *Yahgan* before their contact with the Whites. Nor was tobacco grown or in any form used.

531 *Art.*—There was no form of sculpture or of carving in wood. The only designs, if they can be called such, were the lines, dots, and circles used in face and body painting and in the ornamentation of lodges and paraphernalia in connection with the major rites (fig. 16). There was a certain crude artistry in bodily decorations and in the personal adornments referred to elsewhere in the present paper.

All in all, there are few if any peoples in the world that possessed a more rudimentary esthetic development than the *Yahgan* and their neighbors, the *Alacaluf* and *Ona*.

526 *Games and sports.*—There was no gambling, no games with elaborate rules, no team games unless group wrestling could be called such, and no competitive games except wrestling.

524 Boys practiced with the spear, bow and arrow, and sling, and at stone throwing, but this was as much vocational as recreative activity.

[illegible] There were certain quite simple children's play activities, such as swinging, rolling down hillocks, endurance hopping on one foot, and group play such as [illegible], in which boys and girls crouched in a line one behind the other, sang together a melody in which the meaningless word "[illegible]" was repeated, and slowly danced rocking back and forth in imitation of a canoe making its way forward through the waves. Songs sung on one long meaningless word were [513] common accompaniments of children's group play.

[867] All the women could swim; the men could not. Recreative swimming was rarely indulged in.

524 *Adults'* games, in some of which the children could participate, were equally simple. Such were: blindman's-buff, hopping and singing at the same time, throwing small burning sticks in the air, standing in a circle through which "it" in the middle tried to break. The ball game was popular: A ball made of seal gut stuffed with feathers or 526 grass was kept in the air by the players with strokes from the palm of the hand. Men and women might play the ball game together.

531

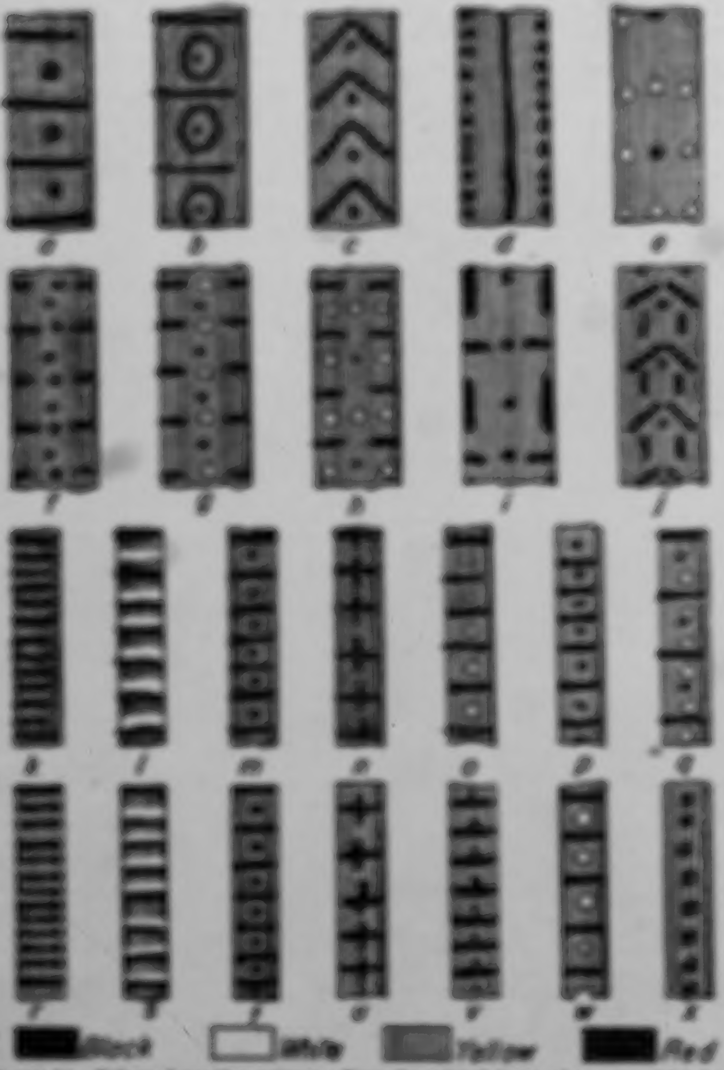

FIGURE 11.—Yahgan decorative patterns. From the painted frame of a ceremonial lodge. (Redrawn from Lothrop, 1928, pl. 8.)

524 Wrestling was indulged in a good deal, mostly by the men, although the women would sometimes intervene in the group wrestling. In pair wrestling, a man challenged an opponent by putting a small ball at his feet. The onlookers formed a circle around the contestants and applauded vigorously. The aim was to put the opponent on his back.

526 The loser would call upon a friend who would in turn challenge the victor who had no choice but to accept. Before the wrestling match began the wrestlers were magically massaged by the medicine man. Sometimes these single matches developed into a free-for-all wrestling match in which several or all of the men would join. Sometimes, too, these general wrestling bouts ended in a serious scuffle.

538 *Music.*—Proverbs were absent. So, too, was poetry; the nearest approach to it was the meaningless words or syllables having a certain rhythm which occur in songs. The songs themselves were extremely 533 simple and monotonous with or without meaningless words. The *Yahgan* had many songs, sung for special occasions such as the *ciéxaus* and mourning rites; others intoned ad libitum. There were no lullabies. *Yahgan* songs show sundry very primitive features, according to [534] von Hornbostel (1936). There were no musical instruments at all. Even the rattle, drum, and flute were absent. Staves with which to beat time were used in certain rites.

535 *Dances.*—Apart from the dances carried out during the *ciéxaus* and *kina* rites, there were none of a symbolic, imitative, or dramatic type, and no war or hunting dances. The *Yahgan* danced alone, in circles or in Indian file. The women rarely danced, and the men and women never together.

RELIGION

771 Most of the religious life of the *Yahgan* centered around theism and shamanism. There was a distinct fear of the dead; there were also the mourning observances previously noted; the souls of dead shamans entered into the beliefs and practices of the medicine men. [769] But no organized ancestral cult existed, and the dead were not prayed to. Animistic beings and observances appeared marginal to the theistic cult and focal in shamanism. There were a number of miscellaneous magico-religious conceptions and observations. Each [illegible] *Yahgan* had a *yefacel*, as a sort of guardian spirit. Various omens were believed in: for instance, the call of the owl was supposed to portend a murder or at least a death. A number, too, of taboos were observed: for instance, when traveling by canoe people had to throw waste into the fire kept burning in the canoe, and not into the water, lest the children should cry. There does not appear to have been any form of divination. The *kina* rite, to be described, had religious features to it, but its purpose and function were primarily social. The great bulk, therefore, of *Yahgan* religion having been taken up with theism and shamanism, in summarizing *Yahgan* theistic and shamanistic phenomena, we shall be summarizing *Yahgan* religion as such.

776 *Theism.*—There was a very definite belief in a Supreme Being called Watauinéwa or Watauinéiwa, who was also called by other

776 names meaning "The Powerful One," "The Highest One," and especially by the name of "My Father." He was not the maker or creator, but rather the master and ruler. He was the owner and giver of animals and plant food. It was he who gave life to human beings, and who took it away. He was fundamentally good and benevolent. He lived above in the heavens. He had no body nor had he wife or children. He was distinctly and eminently set off against and above all other spirits, good and bad, and in this sense stood as it were alone. He did not enter into the tribal folklore and mythology. He saw what human beings did, and upon those who broke the precepts of the *Yahgan* socio-moral code, which represented his will, he inflicted punishment in the way of early death, and often the death of their children.

788 The central role of Watauinéwa in the initiation rites has previously been mentioned. Apart, however, from these rites, Watauinéwa was prayed to a great deal by the individual *Yahgan*. These prayers were mostly petitions to him for food (as the owner of the food animals and plants), for cure and health, and for protection from the elements, as well as expressions of thankfulness. A good many of them were more or less traditionally crystallized formulae, of a few words each, but prayer was likewise expressed in free wording. A quite distinctive feature of *Yahgan* communication with the Supreme Being was the frequency of complaint expressions and charges directed toward him on the occasion of sickness, bad weather, or other evil fortune, and particularly on the occasion of deaths. Gusinde and Koppers collected over 60 of these various kinds of prayer formulae. Some of them are in somewhat archaic language.

771 In view of these archaisms in the complex, of the many distinctly
177 native features (e. g., master, owner, not creator or maker), of the absence of all characteristically European or Christian conceptions, and of the express and emphatic statements by the natives whose memories or whose knowledge from their elders reached back to premissionary days, there can be no reasonable question but that *Yahgan* theism is aboriginal, and not the result of missionary influence. It seems equally clear that it was central in the religious outlook of the *Yahgan* and that it entered deeply and dynamically in their thoughts, emotional life, and personal behavior.

756 **Shamanism.**—A person became a medicine man (yékamush)
787 through an inner call manifested to him in dreams and visions. The héshteka-yékamush, dwarfish spirits, appeared to him; a female spirit, a Hauóllakípa, also played an important part in shamanism, as the shaman's helper. Through the dreams and visions the future medicine man learned which of the small spirits was to be his yefáčel, or particular guardian spirit. From this spirit he also received a song.

756 He was trained in his professional duties by an older shaman. There was also held a shamans' institute and feast, which could last several months, to condition and school young candidates. During it, the candidates were secluded, and were required to fast, to sing much, to maintain a certain posture, to go with little sleep, and to drink water only through a hollow bird bone; and were taught healing techniques, tricks of the trade, and so forth. Women were barred from this shamans' school. Shamans were not banded into an organized society.

A full-fledged shaman, besides getting help from his special guardian spirit, was also in close touch with the spirit of a deceased shaman. [769] The shaman's relations were with the world of lesser spirits, not with the Supreme Being, Watauinéwa; and the latter did not figure in the shamans' school.

The shaman's chief function was that of curing the sick, but he also influenced weather, helped in hunting, prognosticated, and so forth. 755 The familiar procedures of massage, friction, and anointing, with the extraction of some object supposed to be the immediate cause of the disease, were used in curing. Such objects were often believed to have been sent by malevolent shamans from whose power the good shaman endeavored to deliver the victim. An evil shaman could steal and keep in his possession the soul of a victim, and the victim would die unless his soul were freed by another shaman. It was also the function of [778] the shaman to assign to each infant as soon after birth as possible its own yefáčel, a male one to the male infant and a female one to the female. It was the primary and most important duty of the yefáčel to protect its charge against sickness and bodily harm and against dangers of all kind.

575 **Kina rite.**—This *Yahgan* institution, with its numerous analogies to the yinchihaua of the *Alacaluf* (p. 76) and with the klóketen of the *Ona* (p. 120), could have been properly discussed under Social Culture because it had primarily a social function. But it is treated here because it also had important religious or pseudo-religious features and was largely under the direction of the shamans. In fact only a shaman could be the leader of the kina rite. Back of the kina rite was a long myth of an earlier time when the women held mastery of the tribe and lorded it over the men. To maintain their supremacy the women used masks to impersonate spirits and to hoodwink the men. Finally, one man discovered the deception, told the other men, and overthrew the women, killing all females except one very young child. In the kina rite only men who had passed twice through the čiéxaus rite could take part. Women were kept away from the large conical tent. The men secretly painted themselves and wore conical or conoidal masks (pl. 33, *d*) of bark or sealskin to impersonate a very great number

575 of spirits (pl. 23, *a*). So decked out, they sang and danced in the sight of the women and children and threatened the women with dire penalties if they did not remain submissive to the will of the men.

MYTHOLOGY

773 Full details on the cosmogony and mythology of the *Yahgan* have been presented by Gusinde (1937, pp. 1139–1277), with further information on certain of the more important folklore beings (1937, pp. 1278–1294). Perhaps the most important single phase of the mythology is the Yoálox cycle. The elder of the two Yoálox brothers was stupid, the younger, clever. The younger is in a general sense the culture hero. He is not a trickster. The cosmogonic myths include a flood story. There are a great many explanatory tales of the cormorant, the otter, the fox, and so forth. A number of other stories were told with the moral purpose of instructing and warning the young. Certain others concern the medicine man. The long story of the earlier matriarchate was briefly summarized supra under Kina rite with which it was associated, just as the Yoálox cycle was more or less associated with the čiéxaus. The chief folklore beings believed in, but to whom no cult was given, were the dreaded cannibal beings, [776] the Lakúma water spirits, and the Hánuxuh giants.

LORE AND LEARNING

171 – In general, *Yahgan* technology, with the exception of the bark canoe and coiled basketry, gives little indication of inventive strivings. Thus they stand in sharp contrast with their Arctic counterparts, the Eskimo. A comparison for instance between the very simple *Yahgan* harpoons and the very elaborate Eskimo ones shows the sharpest contrast. In this respect *Yahgan* culture resembles more closely the culture of the northern *Athabaskan* and northern *Algonquians* of sub-Arctic America.

202 There were no weights and measures of any kind. There were no
[804] means of communication such as knotted cords, notched sticks, or,
[211] so far as our records go, of travelers' signs, such as the inclined stick to show direction of journey. Smoke signals were made by putting branches of *Nothofagus betuloides* on the fire and, when the dense smoke had risen about 16 feet (5 m.) high, quickly extinguishing the fire, allowing a balloonlike cloud of smoke to ascend. One such smoke signal signified sickness or an accident; two, a grave emergency; three, a death; four, the discovery of a stranded whale.

805 The day was divided into periods of about 4 hours each. The year was divided into four seasons corresponding roughly to our own, and also into eight divisions: "the time when the bark is loose," "when the first bird eggs were found," and so forth.

278- There was almost nothing in the way of herbal curatives, unless
757 the chewing of the leaves of *Drimys winteri* as a purgative and for cardiac and stomach pains could be considered such. Sap from the broken end of a beech branch was swallowed for certain ailments. Other simple remedial measures employed were drinking oil, rubbing the body with it, massaging with *Drimys winteri* leaves, drinking sea water, covering with robes and sweating near the fire. Chalk dust was smeared on for skin eruptions. To cure headache, the nasal passages were scratched to bring about nosebleed.

BIBLIOGRAPHY

[113]- For bibliographic references, see pages [illegible].

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THE INDIANS OF TIERRA DEL FUEGO

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BY

SAMUEL KIRKLAND LOTHROP

NEW YORK
MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
1928

[Title page]

3: Lothrop E-5 (1924-1925) 1928
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PREFACE

THIS account of the natives of Tierra del Fuego is the result of a three months' visit to the island, accompanied by Mr. J. Linaae Wold, during the summer of 1924-25. We studied Ona Indians at three settlements: one at the southeast corner of Lake Fagnano, one to the northeast of the same lake, and the third lying east of the Laguna de Pescados. Yahgan Indians were encountered at Tierra Mayor, Cambaceres bay, Gable island, and Puerto Mejillones on Navarin island. 114

Although the time available was short, aids to study were unusual. Thus, Cooper's "Bibliography" offered in a readily available form an accurate analysis of previous work, with an exception to be noted presently. Furthermore, the help of three intelligent white men—Messrs. Lucas and William Bridges and Fred. Lawrence,—all intimately acquainted with the Indian lore and languages, made it possible to procure accurate data with unusual celerity and facility. All the information thus obtained was checked by the Indians and vice versa, while just before I left the island Mr. William Bridges most kindly went over all my notes and vocabularies. Therefore I feel confident that they are detailed and accurate. 115

In planning my work, owing to the limited time available it seemed wise to concentrate on obvious and concrete problems which could be covered with reasonable thoroughness. Although the studies of Gusinde and Koppers[1] had not then appeared in print, I was told that they had worked chiefly on the religion, initiation ceremonies, folklore, and linguistics. Hence my most profitable course was to devote myself primarily to the material culture and technology. This decision was fostered by the fact that both tribes had been reduced almost to extinction by a recent epidemic of influenza, so that the older men who once took part in native rites had died almost without exception.. Secondly, on Beagle channel a thorough examination of camp-sites was undertaken with a view of determining their nature and age so far as 121

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[1] Consult the Bibliography in the appendix.

121 was possible without extensive excavation. In addition, customs and ceremonial practices were noted as opportunity offered. In preparing this account of the Indians I have followed my own notes even when at variance with previous studies; yet I have tried to incorporate enough material gathered by other observers to present a reasonably complete picture, at least of the material culture.

574 Tierra del Fuego is a land where the frontier traditions of hospitality still reign, so that acknowledgment of the help received seems stiff and formal in the light of the generosity and kindness to be found there. To the Bridges family is due primarily the success of our trip and also a deep debt of gratitude not only for technical and material aid but for kindly hospitality and sumptuous fare on the justly famous Estancia Viamonte. My mouth still waters when I think of poached wild-goose eggs on mutton steak or calafate pie with clotted cream. Mr. John Goodall, manager of the *frigorifico* at Rio Grande, was also a most kindly host. At Harberton Captain and Mrs. Sigurd Nielsen, Mrs. John Lundberg, their many children, and Mr. Eric Fagnilie not only offered us their unstinted hospitality but supplied every facility for travel and work. At Remolino Mr. Fred. Lawrence was both my host and a mine of information. The American and Belgian consuls at Punta Arenas, Mr. John Sharp and Mr. Charles Kwanten, the latter our traveling companion southward from New York, gave us most useful advice and helped us ship our collections northward. Mr. John Williams of Punta Arenas furnished important information. Mr. Thomas Constandurus and Mr. R. H. Orton motored us across vast stretches of southern Patagonia, while Mr. John Hamilton most kindly allowed us to inspect his large and important archeological collection. I have space to mention but a few of the many who went out of their way to be helpful to us, but to all I give my most sincere thanks. Most particularly I am indebted to Mr. J. Linsee Weld for help and support under circumstances of many kinds and for genial companionship during many months in distant lands.

In this country, I wish to thank Mr. George G. Heye for the opportunity to take a most interesting journey and for making possible this publication. Mr. F. W. Hodge has both edited and aided in the preparation of the manuscript, as has also my wife. Prof. E. A. Hooton, assisted by Mr. Walter Cline and Miss Barbara Clark, have worked over all available data on somatology, while

Professor Hooton has most kindly written his impressions of the skeletons thus prepared. The American Geographical Society has courteously allowed me to use the base-map prepared by that institution. 010

Of the illustrations, the drawings were prepared by Mr. William Baake, Mr. Louis Schellbach, and myself, and the maps were drawn by Mr. Schellbach and myself. Through the courtesy of Mr. L. W. Jenkins and the Peabody Museum at Salem I am able to illustrate two bows housed in that institution. To Mr. John Williams of Punta Arenas I am indebted for a picture of a Yahgan bark canoe. The great majority of the photographs were taken by Mr. J. Linzee Weld and myself in Tierra del Fuego and by Mr. Fred. P. Orchard in New York. Illustrations from other sources are acknowledged in their individual places.

S. K. Lothrop

New York
December, 1927

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INTRODUCTION

TIERRA DEL FUEGO and the many adjacent islands are the southernmost inhabited land in the world, a distinction they have enjoyed from time immemorial. Discovered in 1520 by Magellan on the first hazardous voyage of circumnavigation, these wind-swept shores and their savage inhabitants have overwhelmed all European would-be settlers until the last quarter of the nineteenth century. Yet during the long years between discovery and colonization Fuegia did not remain isolated from outside contact, for its storm-vexed waters were traversed by later circumnavigators, by vessels engaged in the China and the Northwest Coast fur-trade, and by tall clipper ships carrying gold-seekers to California. (13)

The Straits of Magellan, the Straits of Le Maire, and the passage of the Horn—all are peculiarly difficult for sailing ships, especially voyaging westward. Even today charts are incomplete and inaccurate; tides range from four to forty-two feet, so strong and vicious currents must be met; anchors, entangled in huge beds of unyielding kelp, may be lost; winters are long, dark, and cold. But above all, storms are common: the mountainous seas off Cape Horn, flowering with foam, and the violent prevailing westerly winds prove a stumbling-block for square-rigged vessels inherently slow in working to windward. "Our passage of the straits [of Magellan] had consumed fifty-one days, and had been effected without accident," writes a nineteenth-century traveler.[1] Owing to the conditions we have described, many a ship was cast ashore on Tierra del Fuego and other islands, there to be greedily plundered by the Indians.

Sometimes shipwrecked crews were slaughtered or otherwise maltreated. In retrospect it is but just to say that the land was then thickly settled in relation to its food supply, and the Indians resented any trespassing on their hunting rights, dealing a similar fate to one another under the same provocation. However, the natives of the Magellanic archipelago acquired a dreadful reputation for savagery and ferocity, which their uncouth appearance and hardiness no little augmented. Indeed even today Tierra del Fuego is regarded by many of the world's inhabitants as a strange and romantic land, peopled by unmitigated cannibals, inhospitable, forlorn, and barren. The very distance of Tierra del Fuego from the places where most of us live is a gap not easily overleaped by the mind, and indeed this gap is not only geographical, but racial and cultural as well.

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[1] Bourne (1853), p. 210.

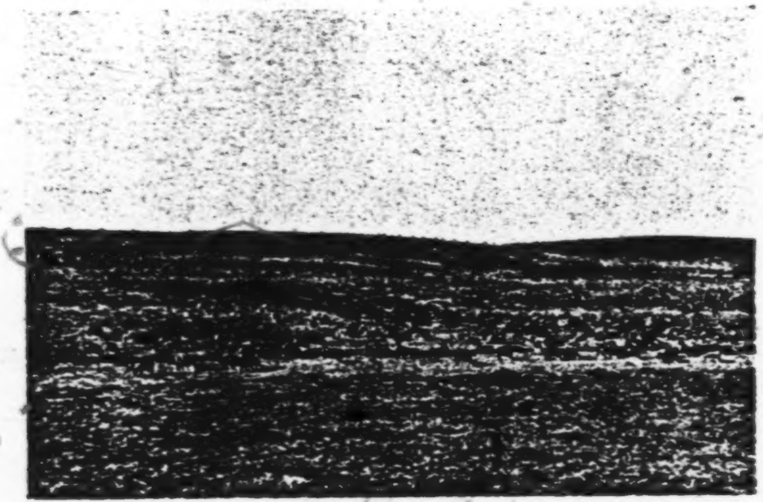
The very fundamentals of Europe, racially and culturally, have for the greater part come directly from the Asiatic continent, so that historians in a philosophic vein have assumed that the march of civilization is constantly westward. *Ex oriente lux.* However, the current anthropological viewpoint is that man developed his peculiar physical and his primitive cultural attributes within the continent of Asia, and, thus primed with hitherto unknown powers to survive and to perpetuate the species, expanded in all directions with great rapidity. This expansion we may liken to the ripples spreading from a stone dropped into a pond, and of such ethnocultural waves the first settlers of Europe and the Fuegians mark the marginal extremes in opposite directions. In other words, until the application of the compass made the oceans a highway instead of a barrier, the western Europeans and the Fuegians were the most widely separated peoples in the world.

|2| To students of human culture the Indians of Tierra del Fuego prove of unusual interest because with such tribes as the Tasmanians they are reputed among the world's most primitive inhabitants. Such isolated and backward peoples may exhibit, through cultural stagnation or degeneration, an early stage in the development of our own and of other complex civilizations. Moreover, the natives of Fuegia afford a clue as to the state of the first men to attain the shores of the Western Hemisphere.

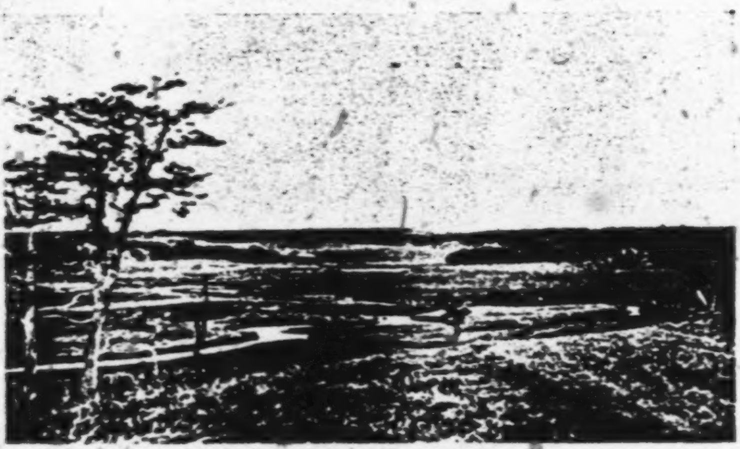
GEOGRAPHY

|3| The term *Tierra del Fuego* is loosely applied to the large archipelago lying south of the mainland of South America; more strictly the name is assigned to the main island, shaped like an irregular triangle. It measures about 240 miles along the south coast, the base of the triangle, and 170 miles from north to south.

South of the main island, separated from it by the narrow waters of Beagle channel, are three large islands (Gordon, Hoste, Navarin).



ESTANCIA SEGUNDA ARGENTINA



ESTANCIA VIAMONTE, NEAR NEW HARBERTON

THE PLAINS OF TIERRA DEL FUEGO

[p. 16-A]

and a host of smaller ones (Gable, Picton, Lennox, New, etc.). 131 Still farther south lie the Wollaston islands. Of these the southernmost is Horn island, terminating in the well-known Cape Horn. This isolated, sea-girt landmark faces the unquiet waters of the Antarctic ocean about seventy miles off the south shores of Tierra del Fuego.

Westward from the main island of Tierra del Fuego, across the Straits of Magellan, is the Brunswick peninsula, whose ultimate tip, Cape Froward, boldly marks the end of continental South America. Nearby are Dawson island, Clarence island, Santa Inés island, and others too numerous to mention.

The main island of Tierra del Fuego presents two types of 133 topography: plains and mountains. The northern and eastern parts are a rolling plain, bare except for grass and small bushes, hummocked by glacial ice, of the same Tertiary formation as the Patagonian plains (pl. I). In the northwest the land rises abruptly and Mesozoic rocks appear as in the Pre-Cordillera range in South America. The western and southern coasts are almost completely isolated from the rest of the island by Admiralty sound, an arm of the sea, and Lake Fagnano, a freshwater lake lying in the same axis. Between these two submerged valleys and the Antarctic ocean pass the Andes, which, after running north and south through the continent, here bend eastward to disappear beneath the waters of the South Atlantic. Their peaks in Tierra del Fuego reach an average height of 3500 feet, but numerous passes exist at about the 2000-foot level, where snow-pockets linger even in summer (pl. II). Glaciers nourished by beds of eternal snow creep to the sea on the west and south.

The Magellanic archipelago then falls in three geographic 131 entities, and each of these was occupied not long ago by corresponding kinds of Indians, speaking unrelated tongues. These divisions are: (1) Tierra del Fuego, occupied by the *Ona* and *Haush;* (2) the southern islands and the south shore of Tierra del Fuego (pl. III), peopled by the *Yahgan;* and (3) the western islands, where lived the *Alacaluf*. The Yahgan and Alacaluf were separated by Brecknock peninsula, a barren headland, sea-girt, with no protecting island fringe, and therefore exposed to the full fury of storms sweeping across the Pacific ocean.

CARTOGRAPHY

114 After the discovery, Tierra del Fuego fell heir to a veil of romantic mysticism spun long ago by Grecian philosophers and embroidered by scholars of the Middle Ages, for it became linked with the fabulous Terra Australis, the antichthon or counter-world of the ancients. Here, it was reasoned, dwelt the Antipodes, who walked foot to foot with the peoples of Europe, in a land where the trees grew downward and the rains and snows fell upward. With the coming of Christianity this postulated continent was banned by the church,[1] for theologians were "scandalized by the suggestion that somewhere on the face of the sphere there existed a race of men who were not of the seed of Adam, and therefore outside the scope of human redemption."[2] Yet belief in this southern continent did not die, but lingered in men's minds. Dante placed his "Hill of Purgatory" in the center of a southern continent.

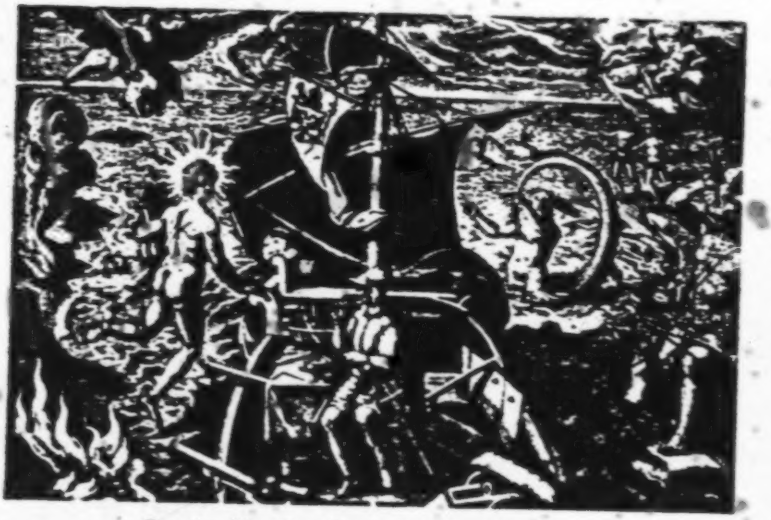


FIG. 1.—Magellan discovering Tierra del Fuego.

With the discovery of the Straits of Magellan an accomplished fact, European geographers believed that the Terra Australis of the ancients had emerged from the realm of fancy, and they showed Tierra del Fuego on their maps as part of a vast circumpolar antarctic continent, separated from South America by the straits Magellan discovered. The vagueness of their ideas is brought out by illustrations such as fig. 1, which pictures an elephant-bearing roc in flight over the masthead of Magellan's *Victoria*, while enticing mermaidens disport alongside in the waters called Pacific from a rare moment of tranquillity.

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[1] Augustine, De Civitate Dei, xvi, 9: "Quod vero et Antipodes esse fabulantur, id est homines a contraria parte terrae ubi sol oritur quando occidit nobis, adversa pedibus nostris calcare vestigia, nulla ratione credendum est."

[2] Payne, History of the New World called America, I, p. 45.

That the cartographers were at fault might soon have been suspected, for in 1526 one of the ships under the command of Loaysa ran southward along the east coast of Tierra del Fuego to "where it appeared there was an end to the land."[1] In 1540 one of the ships of Camargo sailed through the Straits of Le Maire and passed the winter somewhere on the south side of Tierra del Fuego, perhaps in Beagle channel, before returning to Spain. The name of this ship and of its captain is unknown, but part of the log has been preserved.[2] Neither of these voyages, however, attracted the attention of geographers. In 1578 Sir Francis Drake, having successfully passed the Straits of Magellan, was blown southward from Cape Pilar to the Wollaston islands, and the result of his unwilling course is reflected in a map published in Amsterdam by Cornelius Clarz in 1598. In 1616 the Dutchmen Schouten and Le Maire weathered the surf-ringed headland which they named Cape Horn, and, continuing their voyage across the Pacific, thereby definitely established that Tierra del Fuego is an island. When this voyage came to the attention of the Spanish crown, its importance was at once admitted, because it opened to the Far East a road over which Spain had no claim. Hence an expedition was despatched in 1619 under the brothers Nodal to gather exact information for their government. The resultant voyage was favored with fortune and the ships were the first completely to circumnavigate Tierra del Fuego, and also, I believe, the first to complete a voyage in Magellanic waters without loss of life. In 1643 another Dutchman, Brouwer, sailed along the eastern and southern coast of Staaten island. With this voyage the unreality of an antarctic continent near South America was fully established, yet the misconception, or at any rate the old

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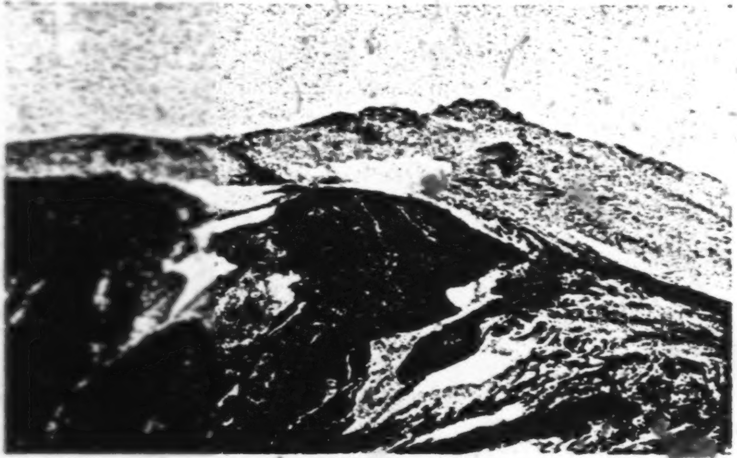
[1] Relación of Andrés de Urdaneta, in Fernández de Navarrete's Colección de los Viages y Descubrimientos, v, p. 402, Madrid, 1837.

[2] Early Voyages to the Straits of Magellan, Sir Clements Markham, tr. et ed., Hakluyt Soc., ser. II, vol. XXVIII, London, 1911.



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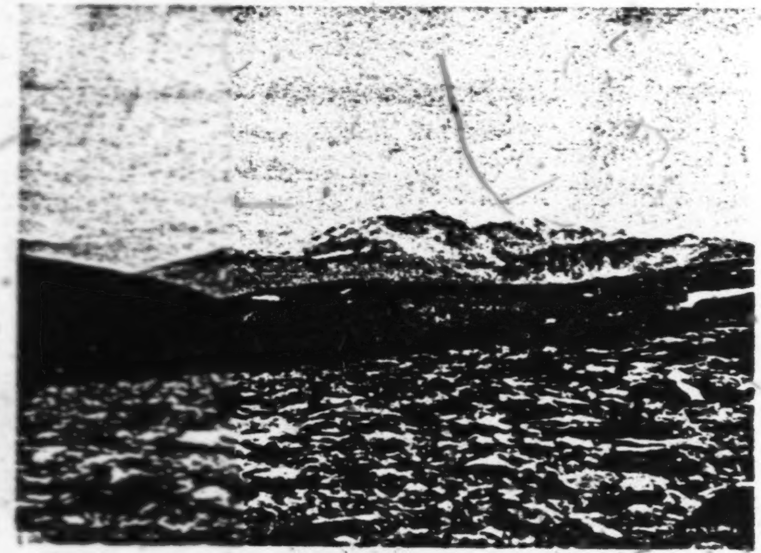

SOUTH CREST OF THE PASS

FUEGIAN MOUNTAINS SEEN FROM THE HARBERTON—LAKE FAGNANO TRAIL

[p. 19-A]

114 map plates, persisted in Europe until well into the eighteenth century. For instance, the map in the 1730 edition of Herrera's *Descripción* depicts Tierra del Fuego as extending indefinitely to the south.

114 103 Traditionally Tierra del Fuego received its name from the flickering lights of camp-fires seen by Magellan. A variant tale is that Magellan called it Tierra del Humo, "Land of Smoke," and that Charles V changed the name to Tierra del Fuego, jocosely remarking that where there was smoke there must be fire. However, I suspect that some idea of Dante's Purgatory underlies the name, because an active volcano (actually non-existent) appears on maps of the sixteenth, seventeenth, and even eighteenth centuries. I have before me a 1799 edition of Anson in which the map shows a "Volcan de Brandende Berg" in active eruption on the south coast of Tierra del Fuego.

HISTORY AND LITERARY SOURCES

114 In the preceding section we have mentioned several voyages, which were of importance in the development of geographical knowledge. This list might be greatly extended. Fagalde (1901) summarizes more than fifty voyages of scientific interest, completed before the end of the eighteenth century, but unfortunately with all ethnological data omitted. Much of this information may be gleaned, however, from De Brosses' *Histoire des Navigations* or Barclay's *The Land of Magellan*. Yet in truth it must be said that early contact with the natives was casual and brief, while the descriptions of ethnological significance apply usually to Indians north of the Straits of Magellan.

During the second half of the eighteenth century a general awakening to the importance of scientific investigations permeated Europe, with the result that various scholars were despatched to Latin America by the Spanish government. Fuegian waters were visited at this time by several surveying parties, and the basis of an accurate knowledge of the region was laid down. The general results of these investigations will be found in De Vargas Ponce's *Relación*. With the rise of Napoleon, however, Spain had no resources to spare for continuing this work, while the collapse of Spanish authority in the New World brought a definite end to it.

Great Britain had emerged from the Napoleonic wars as the dominant sea power. With growing colonial and commercial

133

HARBERTON

[illegible] BAY WITH BEAGLE CHANNEL AND NAVARINO ISLAND IN THE DISTANCE

SOUTH COAST OF TIERRA DEL FUEGO

[p. 20-A]

interests in the Far East, the route thither by way of Tierra del Fuego became a matter of national importance, so that surveying expeditions under the command of Captain King and later Captain Fitzroy were despatched to Magellanic waters.[1] Captain Fitzroy brought back to England after his first voyage a Yahgan and three Alacaluf Indians. On his second voyage he was accompanied by Charles Darwin, the celebrated naturalist. The era of exact and scientific study of the natives of Tierra del Fuego was thus initiated. 114

Fitzroy's and Darwin's account of the Fuegians attracted wide notice in England, while the primitive society, destitution, and ferocity they pictured engendered a desire to Christianize that far-off people. The public in England were further roused by the fate of Captain Allen Gardiner and his companions, amateur missionaries who died of privation and exposure under tragic circumstances in 1851.[2] As a result the South American Missionary Society was organized and a mission station was set up on Keppel island (West Falklands). In 1856 this station was placed in charge of Canon G. Pakenham Despard, who brought with him a thirteen-year-old adopted boy, Thomas Bridges. Young Bridges soon learned to speak the Yahgan tongue fluently. In 1869 he returned to England, where he was ordained and married. The following year he founded at Ushuaia the first mission station on Tierra del Fuego. With him he brought as an assistant John Lawrence.[3] After many years' labor as a missionary Mr. Bridges retired, and in recognition of his services in opening up the country was given a land grant at Harberton by the Argentine government where he raised sheep. Mr. Lawrence received a similar grant at Remolino. 114 797

Bridges and Lawrence children were born on Beagle channel on the south coast of Tierra del Fuego, and were reared in close association with the Yahgan Indians. The Lawrence family, who still live at Remolino, today have an unsurpassed knowledge of Yahgan customs and linguistics. The Bridges brothers, as they grew up, began to explore to the north and east across the mountains, and finally secured for themselves a vast property on the east coast, today a flourishing sheep ranch known as the Estancia 114

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[1] See Narrative of the Surveying Voyages of H. M. S. *Adventure* and *Beagle*, 3 vols., London, 1839.

[2] For a full but sentimental account of this event see Jesse Page, "Captain Allen Gardiner," London, n.d.

[3] A full account of these events is given in the booklet by John U. Marsh, First Fruits of the South American Mission, London, 1873.

114 Viamonte. Their peregrinations through the heart of the island brought them in close contact with the Ona tribe. Indeed, they were the first white men to establish friendly relations with the Ona, and two of the brothers, Messrs. Lucas and William Bridges, have been formally initiated as members of the tribe by the *kloketen* ceremony herein described.

We have related this story at some length because so much literature of ethnological interest depends on it. The elder Mr. Bridges has left among his reports to the missionary society a mine of ethnological information, while Mr. Lawrence's observations are also valuable. In addition Mr. Bridges has written several articles dealing directly with native life, published in various scientific journals, and he has left a monument to himself in what is probably the most intensive study of primitive linguistics ever carried out. Of this we shall have more to say.

Beside the contributions from the pen of Mr. Bridges, he aided greatly the success of the scientific studies made by the Argentine, French, and Italian governments in Tierra del Fuego during the last quarter of the nineteenth century. The important works of Hyades and Bove gain authority from this association. In recent years the Bridges' children, especially Messrs. Lucas and William Bridges, have sponsored practically all the information about the Ona tribe which has found its way into print. Indeed (without detracting from the merits of any writer) it may be said that the importance of most published data [illegible] Ona varies according to whether or not the information was obtained from this generous and hospitable family.

610 618 After the Argentine government had established itself at Ushuaia a gold rush to Tierra del Fuego took place, which caused the coming of many undesirables. The result of this sudden contact with Europeans was disastrous to the native tribes.

The history of white settlement of the island emanating from the missionary post in the south is one of kindly dealing with the native races. Unfortunately the same cannot be said for the north. Sheep were introduced into the northern part of Tierra del Fuego in 1878, and trouble with the natives immediately ensued, for while the Indians had no objection to somebody stocking their game tracts, at the same time they maintained their right to hunt the "white guanaco" on lands which they regarded as their own. ? Naturally the hard-pressed pioneers of what has now become a great industry objected to having their sheep killed, and they retaliated by killing the Indians. 648

Thus there soon sprang into being a class of professional head-hunters, recruited from the shepherds and miners, who received one pound sterling from the ranchers for each Indian head—man, woman, or child. The Indians, on foot and armed with bows and arrows, had little chance in the open plains against horsemen with rifles. Some of the atrocities committed in the '80's are recounted by Fuentes Rabe;[1] the writer heard from discrete and trustworthy sources many similar tales of brutality.

In 1891 a Salesian mission was established on Dawson island, 648
and in 1893 a second station was set up at Cape Peñas and later
transferred to Rio Grande. Although dedicated for three-quarters 797
of a century to the eradication of troublesome Indians, the Government decided to stop the scandals arising from head-hunting by turning the Indians over to the missions. To this end troops scoured the country, rounded up the natives, and drove them like cattle to the mission stations. Families were mercilessly broken up. Strange foods caused sickness and implanted the belief that they were being poisoned. Unaccustomed European clothes and indoor quarters—as in so many well-intended missionary efforts—brought pneumonia and tuberculosis, and augmented the effect of their vitamin-deficient diet. Liquor and venereal diseases, against which Indians have surprisingly little resistance, both took their toll. Few indeed survived the "civilizing" process. Today the Dawson Island mission has been abandoned. The east-coast mission still existed in 1924, ostensibly to support two aged native women in idleness, in reality as a prosperous sheep ranch.

The record of the white settlers in Tierra del Fuego, with of course certain splendid exceptions, is not one to be reviewed with pride; not the Indians but Europeans have proved the greater savages. Missionary efforts, however well intended, have hastened the course of their neophytes to the grave. No more striking example can be adduced of the importance of anthropological and medical training for those who would change the religion and alter the habits of heathen peoples.

One of the chief ethnological results of the northern missions 114
has been the establishment of the Museo Rejional "Mayorino Borgatello" at Punta Arenas. Unfortunately the ethnological

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[1] 1923, III, 177-183.

114 section of this institution, especially rich in Alacaluf and Ona material, has never been adequately organized, so that in 1924 it was musty, moth-eaten, and unlabeled. A more permanent result of the Salesian efforts is the detailed linguistic study of Father José María Beauvoir. Also we must mention the most extraordinary photographic record of Alberto M. De Agostini.

A more detailed discussion of Fuegian anthropological literature by the present writer would be superfluous in view of the very thorough and critical study published in 1917 by the Reverend Dr. John M. Cooper, now of the Catholic University of America at Washington. In the appended bibliography I have listed those works to which reference is made in this volume and have added thereto all the titles I can find which have appeared in the last ten years in order to form a supplement to Father Cooper's admirable treatment of the subject.

THE INDIANS OF TIERRA DEL FUEGO

101 The natives of Tierra del Fuego were divided into three linguistic stocks or four tribal groups known to modern students as the Ona and Haush, Yahgan, and Alacaluf (pl. IV). These terms, of which variously spelled versions are found, come for the greater part from the Yahgan tongue because of the early missionary contact with that tribe. Haush is an Ona word. Alacaluf seems to have been employed by the group thus named to designate themselves and was also used by the Yahgan. The intertribal nomenclature is as follows:

ENGLISH	YAHGAN	ONA
Yahgan	Yámana[1]	Wówun (man) Allen (woman)
Ona	Óna	Shílknam[2]
Alacaluf	Alacaluf	Aírro
Haush	Italum Óna	Haúsh

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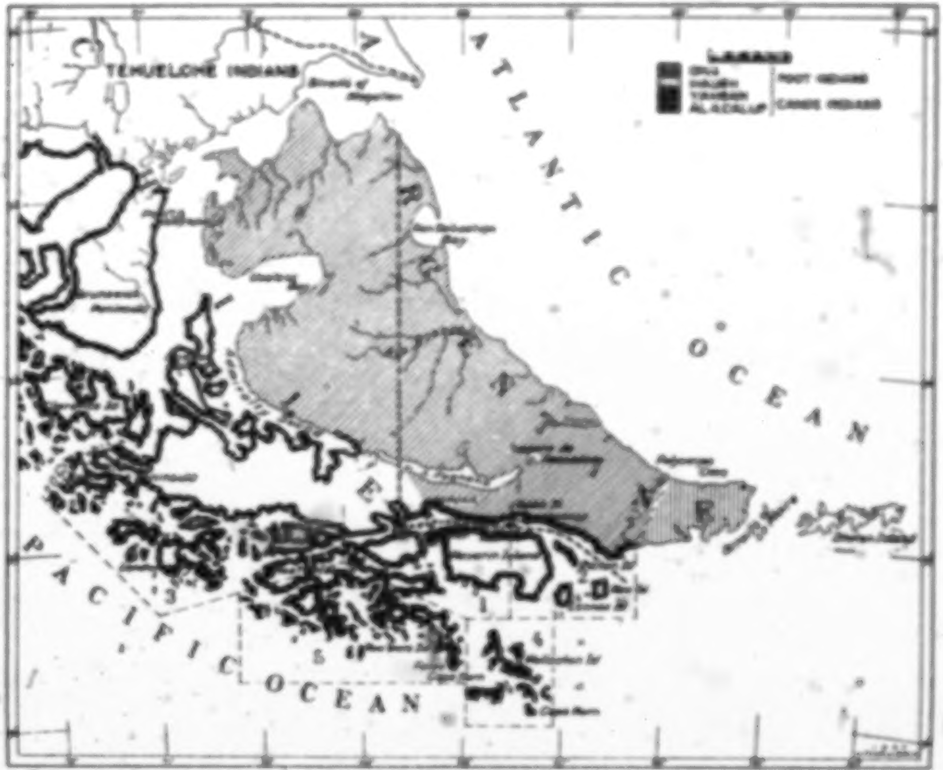
[1] In recent years several writers have used this word to designate the tribe in place of the older term *Yahgan*. Were the tribe to be named for the first time, current practice would dictate the choice of *Yamana*, but *Yahgan* has been the accepted name of the group for many years and is found in most ethnological literature; hence I have continued to use it. For similar reasons I have used *Ona* instead of *Shilknam*. Likewise I have retained the tribal name *Alacaluf* in place of the recently introduced and no doubt more phonetically correct *Halakwulup*. Such changes of terms long recorded in print form a stumbling-block to the general reader and at the same time contribute little or nothing to the specialist.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6



TEHUELCHE INDIANS
Straits of Magellan
LEGEND
ONA
HAUSH
YAHGAN
ALACALUF
FOOT INDIANS
CANOE INDIANS
ATLANTIC OCEAN
ARGENTINA
PACIFIC OCEAN
1
2
3
4
5

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[p. 24-A]

The Ona and the Haush spoke related dialects and occupied the interior of the main island of Tierra del Fuego; they are often called the Foot Indians because of their manner of living. The Yahgan frequented the south coast of the main island and the islands to the south; the *Alacaluf* formerly lived at the western end of the Straits of Magellan but have moved northward to Ración sound. The habitat of each tribe as it was half a century ago is shown in pl. IV. 101

No census of the indigenous population in the old days was ever taken, but from several different estimates the numbers of each tribe seventy-five years ago were approximately: 161

Ona,	3600	Yahgan,	2500-3000
Haush,	300	*Alacaluf*,	3500-4000

Since at least half of the *Alacaluf* lived north of the Straits of Magellan, the total native population of Tierra del Fuego and the adjacent islands can scarcely have been more than 9000.

At the time of the writer's visit (1924-25) the Indian population, including mixed-bloods, was approximately:

Ona,	60-70	Yahgan,	40-50
Haush,	2- 3	*Alacaluf*,	150

Of the *Alacaluf* only two were seen south of the Straits of Magellan, as they now live far to the north, for the greater part in the vicinity of Ración sound. The figure for their numbers is the estimate of the Rev. John Williams of Punta Arenas.

Later in the same year (1925) an epidemic of measles ravaged Tierra del Fuego. What happened to the Yahgan I do not know, but Mr. William Bridges wrote me that more than twenty adult Ona and an unknown number of children had died. With the exception of a few mixed-bloods the Indians of Tierra del Fuego are probably extinct. [164]

Because the writer saw little of the *Alacaluf* and Haush, it is principally of the Ona and Yahgan we shall speak below. Before beginning a detailed description we shall discuss their environment and physical peculiarities, and shall list the features of their culture.

CLIMATE

Tierra del Fuego lies between 53° and 56° south latitude, corresponding to the position in the northern hemisphere of the Aleutian islands, southern Labrador, or the central part of Great Britain. 138

[32] The shores of Tierra del Fuego are washed by an Antarctic current which ranges in temperature during the year between 40° and 50° Fahrenheit. Hence the land temperature is low, but there are no great extremes.

Let us examine some figures. At Ushuaia, the southernmost town in the world, according to Argentine government reports the mean summer temperature is 50° Fahrenheit, while the winter mean is 35°. In summer the thermometer rarely registers above 65°, yet in winter the mercury seldom falls below 10°. At Punta Arenas on the Straits of Magellan the summer mean is 51° and the winter mean is 28°. Although I have no figures to support the assertion, I believe the eastern side of the island is colder than the western.

As to rainfall, at Ushuaia it amounts to 24.8 inches annually, while in Punta Arenas there are 16 inches, to which must be added 14 inches of snow. In the east rain is more frequent, and about 50 inches are said to fall on Staaten island annually. It is quite surprising that the comparatively light rainfall of Ushuaia and Punta Arenas should foster the growth of forests almost tropical in their density. The controlling factor probably is the feebleness of evaporation, owing to low average temperatures.

The figures cited for rainfall and temperature show that extremes are absent from Tierra del Fuego, yet they do not give a just picture of the climate as it affects human life. For instance, the writer witnessed snowfalls at sea-level in December, January, and February, the three summer months. Two of Captain Cook's men were actually frozen to death near Good Success bay on the night of January 16, 1769.[1] To be sure, Cook's men may be criticised with some justice for allowing night to overtake them in a strange land at a place where no firewood was nearby; yet the incident shows that even in the Fuegian summer one must prepare to face cold. In winter, snow piles deep in the wooded portions of the island, but on the open plains it often turns to sheet-ice.

In some years the frosts never leave the ground in Tierra del Fuego. Grains never ripen except occasionally in the vicinity of Porvenir on the north coast.

Owing to the ecliptic orbit and inclined axis of the earth, summer is eight days shorter and winter eight days longer in the southern than in the northern hemisphere. The upper photograph in pl. II was taken at an elevation of 2020 feet on December 22. It shows midsummer snow-pockets above the tree-line at an elevation of only 1800 feet. At 3000 to 3500 feet one reaches fields of eternal snow from which numerous glaciers descend to the sea. Glaciers reach sea-level not only in Tierra del Fuego but for hundreds of miles northward on the west coast of Chile, as far in fact as the Gulf of Peñas, which corresponds in latitude to the position of Duluth, Seattle, Budapest, or Geneva. This is about 1250 miles nearer the equator than the most southerly coastal glacier in Norway.

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[1] See Hawkesworth, II, chap. II.

In addition to cold, wind is an unfavorable factor on human life in Tierra del Fuego. Cape Horn gales are world famous; squalls are sudden and savage; even the prevailing westerly winds blow with enough vigor to make life in the open unpleasant. To the Foot Indians of the interior the winds were more disagreeable than dangerous, but to the Canoe Indians they were fraught with peril. Not only might treacherous williwaws sweep from the mountains to overwhelm their bark canoes, but prolonged gales might isolate them on barren islands for days or even weeks till they starved to death.

The picture we have painted of the Fuegian climate is a most unpleasant one. In the mind of the writer it is mitigated by the memory of warm summer days with motionless air and brightly shining sun. On such days sea-bathing is no more uncomfortable than on the coast of Maine or the English channel. However, one must pick a place where the incoming tide sweeps across sun-warmed sands.

The most unusual aspect of the Fuegian summer climate is the rapidity with which it changes. At one moment it will be a clear bright day with no wind, while half an hour later it may be blowing a gale and snowing. This summer climate—except for the rapid changes—is not unlike a New England October, blessed with "Indian summer" and not infrequent frosts. It is bracing and invigorating, however, and in Tierra del Fuego causes both men and animals, domestic or foreign, to grow robustly.

When the climate of Tierra del Fuego has been pictured, the most unfavorable aspect of the environment on human beings has been described, for the flora and fauna both supply many economic assets to the inhabitants.

FLORA

137 The northern and eastern parts of Tierra del Fuego, as we have said, are open rolling plains covered with short grass and small shrubs. South of the Rio Fuego small clumps of trees surrounded by grass-lands are encountered. These clumps gradually increase in size and height until they finally form a solid forest broken only by *pantanos*, or peat-bogs, which are found in the valley bottoms and above the tree-line on the mountainsides. All the slopes of the Andes up to an elevation of 1400 feet or more, the south coast, and the nearby islands are covered by forest. And these forests are surprisingly dense, damp, luxuriant, and impenetrable (fig. 2). Fostered by snow-fed streams and mists, dampness encourages the growth of lichens, mosses, fungi, and orchids. Travel through virgin woods is impeded by fallen trunks, thick underbrush, and mud, but, owing to the relative absence of spiny growth, is not so disconcerting as in the tropics.

Fig. 2.—Fuegian forest. (From Alberto De Agostini, I Miei Viaggi nella Terra del Fuoco.)

The trees and bushes of prime economic use to the Indians we list below. The various purposes to which they are put we shall discuss together with the manufacture of the articles used by the Indians. These trees and shrubs are:

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TABLE 1.—ECONOMICALLY IMPORTANT FLORA OF TIERRA DEL FUEGO

English	Spanish	Latin	Ona	Yahgan
beech beech beech[1] pickwood Winter's bark cypress	ñire coigüe roble leña dura canelo ciprés	Nothofagus antarctica Nothofagus betuloides Nothofagus pumilio Maytenus magellanica Drimys winteri Libocedrus tetragona	[illegible] [illegible] [illegible] [illegible][2] [illegible] ——	[illegible] [illegible] [illegible] [illegible][2] [illegible] ——
holly barberry barberry [illegible] —— ——	chaura calafate calafate —— ciruelillo ——	Pernettya mucronata Berberis buxifolia Berberis ilicifolia Chiliotrichum amelloideum Embothrium coccineum ——	[illegible] [illegible] —— [illegible] —— [illegible]	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
grass	juncus	Juncus magellanicus	tai	[illegible]
fungus	——	Cyttaria darwinii	[illegible]	[illegible]

Although the Indians of Tierra del Fuego subsisted chiefly by hunting and fishing, they did not overlook the food value of various berries which grow on the island. Of these the most easily obtainable is the barberry, which flourishes everywhere. It is a variety different from the red-berried barberry (*Berberis vulgaris*) found in northern climes, for it looks and tastes not unlike our blueberry and makes an excellent stewed fruit. Then there is the red berry of an arbutus, similar to our cranberry in size and shape but rather tasteless; also what is locally called a "strawberry" (*Rubus geoides*) looks like a raspberry, tastes like a blend of peach and papaya, and grows half underground.

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The Ona are said to collect grass-seeds (called tai) which they grind to a paste and eat, but this I did not see.

There are ten or more kinds of fungi on Tierra del Fuego, which, according to Rev. Thomas Bridges (1886), were eaten at various times of year by the Yahgan. Of these the most important both to the Ona and the Yahgan was a brilliant orange growth (*Cyttaria darwinii*) found on beech trees. When ripe, it is mucilaginous and rather insipid. The Yahgan still dry this fungus on rods and preserve it for winter use (fig. 3). Darwin remarks that since

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[1] This tree is an evergreen.

[2] Word-borrowing is suggested by the similarity of Ona and Yahgan terms.

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262 the introduction of the potato to New Zealand, Tierra del Fuego is the only part of the world where cryptogamic plants form the chief vegetal diet.

However, the Fuegian Indians failed to utilize many native food plants of value, such as wild celery, two kinds of cress, wild spinach, wild parsnip, scurvy grass, and mushrooms.

[25]

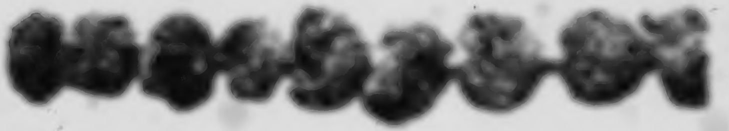

FIG. 5.—Fungi dried on a cord for winter use. Length, 8 in. (16/2370)

137 No description of the flora of Tierra del Fuego can omit mention of the gigantic kelp (*Fucus giganteus*) which almost everywhere fringes the coasts. Though the stems are not thick, they often exceed a hundred feet in length. Darwin[1] picturesquely writes: "I can only compare these great aquatic forests of the southern hemisphere with the terrestrial ones in the intertropical regions. Yet if the latter should be destroyed in any country, I do not believe that nearly so many species of animals would perish, as, under similar circumstances would happen with the kelp. Amidst the leaves of this plant numerous species of fish live, which nowhere else would find food or shelter; with their destruction the many cormorants, divers, and other fishing birds, the otters, seals, and porpoises, would soon perish also; and lastly the Fuegian savage, the miserable lord of this miserable land, would redouble his cannibal feast, decrease in numbers, and perhaps cease to exist." The kelp forms an excellent breakwater and mooring for canoes, but it is is an impenetrable barrier to swimmers and has prevented many unfortunate occupants of overturned canoes from safely reaching the shore. Its appearance on the surface of the water may be seen in pl. III, top, and pl. IV, top.

FAUNA

136 From the Indian point of view what made Tierra del Fuego a suitable land for habitation was the edible fauna, which in turn

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[1] 1845, p. 265.

S. Lothrop E-3 (1924-1925) 1928

SH6 Yahgan SH6

depended on the flora, especially the grasses on land and the kelp along the shore.

Of the land animals first place in economic importance falls to the guanaco, one of the four New World varieties of camel (fig. 6). The guanaco is closely related to the llama of Peru, but, whereas the llama is found only as a domestic animal, the guanaco has never been successfully domesticated, although easily tamed. The guanaco has been succinctly described as having "the neigh of a horse, the wool of a sheep, the neck of a camel, the feet of a deer, and the swiftness of the devil."[1] In Tierra del Fuego, guanacos attain a much larger size than in Patagonia, while on Navarin island they are nearly as large as a cow.

Fig. 6.—Young guanaco.

Material culture of the Ona is based on the guanaco, and the importance of this animal in their economic life is emphasized by the highly specialized vocabulary used to describe it. Fur from new-born guanaco is exceedingly soft, and the Tehuelche of Patagonia used it for robes. The Fuegians, however, confronting greater cold, made their robes from skins of the adult animal. From guanaco-hide the Ona made their windbreaks (which served as houses), storage bags, water bags, and thongs; from the forehead they fabricated caps; from the sinews they made twine; from a leg bone they manufactured a chipping tool; from the hocks they fashioned moccasins. Guanaco meat, rather dry, stringy, and

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[1] Musters, p. 127.

136 tasteless to our notions, formed the principal meat diet of the Foot Indians. Wool was the only asset of the guanaco not utilized by the Ona, for lacking knowledge of weaving and ability to organize in large numbers, they never rounded up the wild guanaco to shear them, as was done to the llama on a large scale under the Inca dynasty in Peru.

For the Ona, second place in importance among the land animals falls to the fox (Ona: *uash*), one of the two varieties of which grows to an unusual size. I have been told that on occasions of great scarcity the foxes in Tierra del Fuego have combined to form packs in the fashion of wolves, and it is then well for a man to avoid them. Fox was sometimes eaten by the Ona, and the skin was occasionally used for robes, if guanaco were scarce. Two kinds of bags (*hásiⁿ* and *kólue*) found in every Ona household were made of fox-skin.

A small burrowing rodent (*Ctenomys fueginus*), known in Spanish as the *tucotuco* or *cururo*, was eaten by the Ona, who dug up the burrows with sticks. In places large areas of the Fuegian plains,

TABLE II.—FUEGIAN FOODS[1]

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	ONA	YAHGAN
animal	guanaco***** fox (two kinds)** tucotuco seal (four kinds) whale rat (rare)	seal*** porpoise** whale* } oil stored otter (chiefly in west) guanaco (only in east)
fish	chiefly eels**	many kinds***
shellfish, etc.	mussels* limpets crabs	mussels***** limpets* conchs crabs* sea-urchins*
birds (chiefly in summer)	goose (four kinds)** duck (five kinds) cormorant*	goose* duck gulls** penguin* cormorant* } and their eggs**
vegetal (in summer)	fungus (several kinds) berries (three kinds) grass-seeds	fungus* berries

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[1] Putative relative importance of foods is indicated by asterisks.

undermined by this animal, recall the gopher burrows in western North America. 136

The Fuegian dog is not known in a wild state, and today it is extinct, although much blood of the native breed must run in the veins of the innumerable sheep dogs and hounds to be found on the island. In height the native dog ranged from 11 to 20 inches. Their ears were pointed, muzzles sharp, and skulls broad. The markings were black and white, with tan running-gear. Like most Indian dogs they lived largely on such garbage as they could pick up around the encampment, but in times of plenty they were given meat or mussels by their masters. Also occasionally they might pull down a guanaco and enjoy a square meal before the arrival of the hunter, as illustrated in the legend of Kuanip, presented later. 231

Of the sea animals, the four kinds of seal found in Fuegian waters formed the principal meat diet of the Yahgan. Not only did they eat the seal, but they used its hide for capes, moccasins, house-tops, and thongs. It is surprising they never invented a hide boat, which would have been much less perishable than their bark canoes. The Haush also ate a great many seal, and the Ona ate seal but did not specialize in its pursuit. 136

Otter of three kinds, one living on land and two in the sea, were prized by both Yahgan and Alacaluf, who used their skins for clothing. Both these peoples attacked porpoises, and at times, when some innate instinct assured them of good weather, they pursued them far into the open sea.

To the Fuegian tribes whale was a great delicacy, and by all accounts this leviathan existed in large numbers in Fuegian waters until recently. Sometimes the Canoe Indians ventured to attack whales that had blundered into shallow water, but usually they were secured dead on the beaches. These were gala occasions, and feuds and animosities were forgotten as great numbers gathered to gorge themselves on the often putrid, diseased, and stinking flesh. When satiated, the Yahgan sometimes buried a meat supply far under ground where, were there frost, it might be preserved for many months. This custom recalls the burying of salmon on the northwest coast of North America, where the decomposed fish was mixed with oil and eaten with gusto. [251]

Fuegian waters abound in fish, both large and small, which were eaten by all the tribes. The Ona took fish from pools at low tide, 136 226

while the Yahgan speared them in deep water or drew them with
136 bait to the surface where they could be seized by hand. Failure
226 to utilize fully the fish supply must be regarded as a great deficiency
of the Fuegian economic system, a lack which might have been
overcome by the invention of fish-traps and the fish-hook.

Both Foot and Canoe Indians ate great numbers of mussels, conchs, and limpets, and ancient camp-sites often are indicated by large piles of shells. This is especially true in the Yahgan country, because all their camp-sites were on the beach where shellfish were easily obtained.

136 The Canoe Indians ate a species of sea-urchin some three or four inches in diameter, and also crabs. Of these the most succulent is a giant spider crab (*Lithodes antarctica*), so good to eat that today it is canned and exported from Punta Arenas.

Birds abound in Tierra del Fuego. Many, to be sure, have a fishy taste, but to a palate not over-delicate they offer an abundant food supply. Among birds of economic use to the Indians we should mention four kinds of goose and five kinds of duck. The upland goose and the pin-tail duck are the best eating. Also there are many kinds of gull (including the albatross), penguins, vultures, eagles, doves, plover, and, curiously enough, a paroquet and a hummingbird.

182 As to the environment in general, it is much more suitable for supporting human life than is realized by those who have not visited Tierra del Fuego. The public mind, we believe, is unduly impressed by the romantic place of the island in history, by adventurous accounts of midwinter weatherings of the Horn in sailing vessels, by modern travelers elated at the length and labor of their journeys. Glaciers descend to the sea in Tierra del Fuego, but the land also nourishes orchids, mushrooms, paroquets, hummingbirds, and butterflies. Prosperous sheep ranches with their comfortable and commodious houses and their well-stocked vegetable and flower gardens show that European standards of living can be achieved on the island. And these settlements, were over-sea transportation to be cut off, could probably maintain themselves better on local resources than most European settlements in the tropics.

The climate of Tierra del Fuego, to be sure, is severe, but it is not so extreme as inhabited regions of Europe, Asia, North America, and Greenland. Agriculture within certain limits is entirely

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

feasible. Timber of many kinds is available—and with this we may contrast the condition of certain Eskimo who must rely on driftwood for some of their manufactures and on oil for their heat. Furthermore, animal foods are found by land and by sea in sufficient quantities to support a relatively large population of a non-agricultural, hunting class. 182

Clearly then some of the very primitive features we shall describe were not forced on the natives by their environment, but rather were the result of lack of ingenuity or of inertia.

CULTURE STATUS

Fuegian culture ranks among the most primitive that has been known within the limits of recorded history. To emphasize this statement we subjoin a list of all the articles and materials observed among the Ona and the Yahgan. This list at first glance seems fairly long, but one must consider that it embraces not only the individual but a complete family including both sexes and all ages. Further, it includes not what appeared for any given occasion but everything with which any Indian normally came in contact during an entire lifetime. In contrast, if the reader will list the objects he makes use of between bed and breakfast, he will find that in half an hour of daily routine he has utilized more articles and more materials than a Fuegian ever manipulated. 105

More justly, however, we should compare the Fuegian culture with the status usually found among Indian hunting tribes. On this basis we find that the Fuegians lacked such simple implements as the drill, the ax, the spear-thrower, fish-hooks, and cooking containers. They had no pottery, no weaving, no method of softening skins except by use, nor had they more than a rudimentary art of painting, while sculpture was beyond them. They rarely stored food against a time of stress. Their games, their social organization and ceremonies, were but slightly developed. Religion was largely a negative affair, for they indulged less in religious acts probably than any people known in the world in recent times. Animistic beliefs they had, but scarcely a trace of fetishism has been noted, and of totemism—so widely developed throughout the Americas—there is not a vestige.

In estimating this list it must also be borne in mind that the Ona and Yahgan cultures have intermingled especially along the frontier. In some instances, such as the initiation ceremonies or 105 177

105 177 the method of fire-making, the borrowing group made the introduced feature completely their own. But often the borrowed trait never became characteristic, and its use was only local and occasional. If these acquired features are subtracted the cultural poverty of each tribe is greatly intensified.

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SUMMARY OF FUEGIAN MATERIAL CULTURE

ONA	YAHGAN
Clothing	
robe	cape
slip	——
pubic covering	pubic covering
moccasins	moccasins (rare)
leggings (rare)	leggings (rare)
hunter's cap	——
shaman's cap (rare)	shaman's cap (rare)
——	mittens (rare)
Ornamentation	
anklets	anklets (rare)
wristlets (rare)	wristlets (rare)
necklace	necklace
paint	paint
tattooing	——
House	
skin windbreak	skin-covered dome of saplings
log tipi (rare)	log tipi (rare)
Transportation	
pack harness	canoe
walking-stick	paddle
——	bailer
——	mooring rope
Camp Equipment	
flint and pyrites	flint and pyrites
fire-tongs	fire-tongs
grease stone	grease stone
skin water-bag	bark bucket
——	shell cup
skin storage-bags	skin storage-bags
gut storage-bags (rare)	gut storage-bags
——	kelp storage-bag

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basket (one kind)	baskets (three kinds)
frame cradle	——
dog leash	——
——	feather broom (recent?)
comb	comb
——	face-painting stick

Tools

knife	knife
flesh-scraper	flesh-scraper (rare)
wood-scraper	wood-scraper
sharpening stone	sharpening stone
awl	awl
chipping tool	?
stone shaft-polisher	?
skin polisher	pumice
——	barking tools (two kinds)

Weapons and Hunting Equipment

bow and arrow	bow and arrow (rare)
spear (rudimentary)	spears (five kinds)
sling (rare)	sling
——	club
bird-snare	bird-snare
net (rare, two kinds)	net (rare)
——	grass dip-net
——	fish-line
bark torch	bark torch

Games

ball	ball
circular grass target (rare)	——

Religious and Ceremonial Paraphernalia

masks	masks
feather headband	feather headband
kelp-goose down headband	kelp-goose down headband
——	painted sticks
——	painted thong
——	guanaco-hide headband
——	tickling stick
——	ceremonial spear

Materials

105
171

wood	wood
sinew	sinew
skin	skin
stone	stone
bone	bone
whalebone (rare)	whalebone
——	kelp
grass	grass
feathers	feathers
——	pumice
white clay	white clay
red burnt earth	red burnt earth
charcoal	charcoal
pitch (post-European)	——
iron (post-European)	iron (post-European)
glass (post-European)	glass (post-European)

PHYSICAL TYPE

114 The writer engaged in no anthropometric investigation in Tierra del Fuego, but certain measurements are available by which the physical types there to be found may be determined. The most important study yet published is that of Hyades (1891) on the Yahgan prepared in coöperation with Deniker, a work surprisingly sound in method considering how long ago it appeared. A series of measurements on the Ona taken many years ago but printed recently (1927) by Dr. Lehmann-Nitsche is also of prime importance. Somatological data collected by Gusinde and Koppers in recent years is beginning to appear in print, but with a single exception it has not been possible to obtain copies in time to incorporate the material here. Other studies of smaller scope are available and have been listed by Cooper (1917, pp. 138–140) and Dixon (1923, pp. 454–455). Even when concentrated into a single group, Fuegian somatological material is not abundant.

114
101 Primary division of the Indians of Tierra del Fuego into groups, Foot Indians and Canoe Indians, is made on cultural grounds. This classification might also be based on physical type, and, in case of the Foot Indians, on linguistic relationship. As with the cultural evidence, physical data on the Alacaluf and Haush are so scanty that we shall confine our discussion to the Ona and the Yahgan.

142 To casual observation the Ona impress one by their great height, their barrel-like chests, their splendidly upstanding carriage, and their patent strength and endurance (figs. 7 and 37). Their hair grows abundantly on the head, but sparsely on the face and body, from which in the old days they plucked it with a pair of mussel-shells. Their feet, ankles, hands, and wrists are surprisingly delicate in proportion to their great stature. A peculiar physical characteristic which has escaped comment is the not infrequent presence of purple-black patches like birthmarks on the skin. These may appear on any part of the body, but are especially common on the base of the neck, where an example was noted among the Yahgan. As the Indians are sensitive about such nævi, examination is difficult.

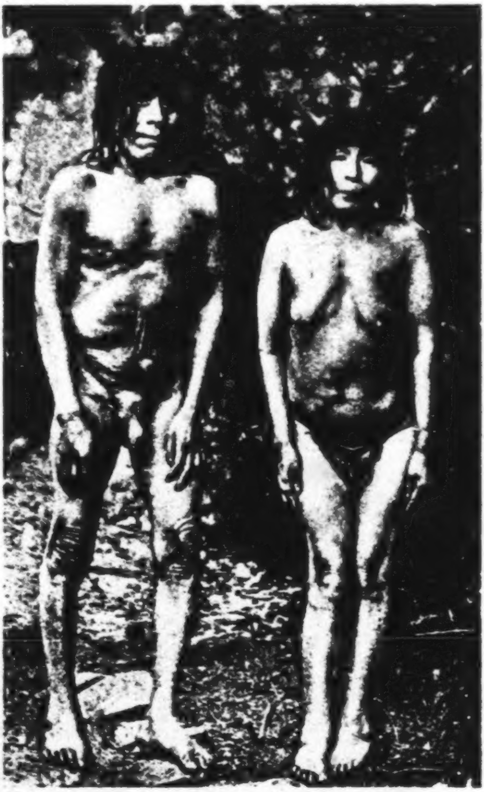

Fig. 5.—Yahgan Indians. (After Hyades and Deniker.)

141 In sharp contrast to the Ona the Yahgan are exceedingly short. Their stature approximates closely that of the Alacaluf, among whom Hyades (1891, p. 120) found an average of 157.4 for eleven men and 148.8 for six women. All visitors to Tierra del
142 Fuego have commented on the corpulence of the Yahgan in relation to their slender legs, a characteristic attributed to long hours spent

142 in the cramped positions compulsory in their canoes. The eastern Yahgan, it is asserted, had better developed legs than the other groups because they hunted more frequently on shore. Like the Ona, the Yahgan had little hair on their faces and removed this growth with mussel-shell pincers. It is stated[1] that on the arrival of the French scientific expedition in 1883 the Yahgan mistook the beards of the Frenchmen for tobacco, and in that belief tried to pull them off.

142 147 We should also mention a curious Yahgan anomaly noted by Hyades and Deniker (1891, p., 168) that these Indians tended to put on fat with unusual rapidity in times of plenty, and were able to live on this reserve when food was scarce. Yahgans of age before the white settlement resulted in a less erratic food supply exhibited skin hanging in folds on underfed individuals (fig. 5). The ability to store unusual amounts of fat, most developed in modern races among the Hottentot, has been thought a survival of a hibernating stage in the development of man. Its existence in Paleolithic Europe is deduced from steatopygous figurines among the most ancient carvings produced by human hands. Anatomically, Hyades and Deniker explain this feature by long intestines coupled with a small stomach, leading to rapid and frequent digestion of small amounts of food. The Yahgan stomach was found to contain 1800 cc. as against 3700 cc. for Europeans, presumably Frenchmen, while the Yahgan intestines were six times the length of the body as compared with five times the length of the body in Europeans. These observations and conclusions, it may be mentioned, are not in accord with more recent investigations which reveal a correlation between long intestines and a vegetal diet.

000 We can say little about the physique of Haush and Alacaluf. the former clearly were related to the Ona, while the latter were short in stature like the Yahgan.

141 Turning to more exact data, in the accompanying table we give statistical constants for the Ona and the Yahgan, based on all available material. For the preparation of this table I am indebted to Prof. E. A. Hooton of Harvard University, to Mr. Walter Cline, and to Miss Barbara Clark. I am further indebted to Professor Hooton for the subjoined comment.

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[1] Capt. Le Clerk in the *South American Missionary Magazine*, 1884, p. 58.

TABLE III.—STATISTICAL CONSTANTS FOR THE ONA AND THE YAHGAN

		Number of Cases	Mean	Standard Deviation	Coefficient of Variation	Range
Stature						
Onas	Adult Males	25	175.44 ± .64	4.71 ± .45	2.68 ± .26	168–186
Yahgans	" "	67	158.10 ± .43	5.23 ± .30	3.31 ± .19	146–169
Onas	Adult Females	34	159.24 ± .58	5.02 ± .41	3.15 ± .26	149–169
Yahgans	" "	56	147.54 ± .34	3.82 ± .24	2.59 ± .17	141–157
Head Length						
Onas	Adult Males	22	198.77 ± .51	3.57 ± .36	1.80 ± .18	192–205
Yahgans	" "	27	190.04 ± .87	6.72 ± .62	3.54 ± .32	175–207
Onas	Adult Females	30	190.37 ± .60	4.86 ± .42	2.55 ± .22	182–200
Yahgans	" "	26	180.38 ± .74	5.59 ± .52	3.10 ± .29	168–193
Head Breadth						
Onas	Adult Males	22	158.91 ± .48	3.31 ± .34	2.09 ± .21	152–164
Yahgans	" "	27	150.78 ± .64	4.95 ± .45	3.29 ± .30	145–163
Onas	Adult Females	30	153.20 ± .62	5.06 ± .44	3.30 ± .29	142–163
Yahgans	" "	26	142.46 ± .35	2.63 ± .25	1.85 ± .17	138–147
Length-breadth of head						
Onas	Adult Males	22	80.05 ± .32	2.20 ± .22	2.75 ± .28	77–85
Yahgans	" "	26	79.27 ± .37	2.78 ± .26	3.51 ± .33	74–88
Onas	Adult Females	30	80.57 ± .34	2.77 ± .24	3.43 ± .30	74–86
Yahgans	" "	26	79.04 ± .34	2.56 ± .24	3.24 ± .03	73–84
Nasal Index						
Onas	Adult Males	22	71.18 ± 1.00	6.93 ± .70	9.73 ± .99	58–84
Onas	Adult Females	30	70.30 ± .79	6.45 ± .56	9.17 ± .80	60–87
Facial Index						
Onas	Adult Males	20	85.50 ± .75	4.95 ± .53	5.78 ± .62	78–97
Onas	Adult Females	30	85.80 ± .53	4.30 ± .37	5.01 ± .44	75–91

NOTE ON THE ANTHROPOMETRIC CHARACTERS OF THE YAHGAN AND THE ONA

By PROF. E. A. HOOTON

THE statistical constants in the accompanying table are derived from the data of Lehmann-Nitsche and Gusinde in the case of the Ona, and from the data of Hyades and Deniker, Bove, and Hahn in the case of the Yahgan.

The difference in size between these adjacent tribes, both of which live almost exclusively on animal food, is prodigious. Twenty-five adult male Ona yield a mean stature of 175.44 cm., which is

141 probably the highest to be found among American Indians. It is, of course, possible that the neighboring Patagonians equal this figure. On the other hand the stature of 67 adult male Yahgans is only 158.10, which ranks them among the shortest of American Indian groups. Even more remarkable than the means are the standard deviations and coefficients of variation for stature. In a series of 540 full-blood Sioux, Sullivan[1] found a standard deviation of 5.64 cm. and a coefficient of variation of 3.27 per cent. The corresponding figures are somewhat lower in the Yahgan and significantly lower in the Ona. Davenport[2] lists the standard deviations of stature for eight samples of males of military age of various nationalities. All of these standard deviations exceed 6 cm. It is then apparent that the variability of the Fuegians in stature is low.

It may also be observed from the table that the variabilities of the short Yahgan with respect to stature are somewhat higher than those of the tall Ona. The reverse is true however in the female series.

The head lengths of both groups show similar statistical features. The mean of the dimension for Ona males, 198.77 mm., is the largest known to the present writer, and the variability of this measurement is wonderfully small. The Yahgan too have long heads, but are much more variable than the Ona in this respect. Similar observations apply to the head breadth.

The means of the cephalic indices indicate a predominance of mesocephaly in both groups. The Ona show slightly higher means than the Yahgan. Here again variabilities are extraordinarily low. The Ona range in males is from 77 to 85, and the Yahgan from 74 to 88. In case of the females the ranges are: Ona 74–86; Yahgan 73–84. The variabilities of the female groups with respect to this index do not differ significantly.

Data for the nasal and total facial indices are available only for the Ona series. In both of these cases the standard deviations and variabilities are rather large. All varieties of nasal and facial proportions occur. One expects, however, to find a large measure of variability in both of these indices; first, because of the extreme difficulty in locating the nasion point from which both nasal height and facial height are measured; second, because of age changes in the individual which affect these parts. The length of the nose increases with age and the length of the face tends to diminish with wear and loss of teeth. Nevertheless it would appear that these indices in the Ona group by their dispersion indicate a lack of homogeneity of the group when compared with the measurements and indices previously considered. 141

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[1] L. R. Sullivan, Anthropometry of the Siouan Tribes, *Proc. Nat. Acad. Sci.*, VI, no. 3, pp. 131–134, Mar. 1920.

[2] Charles B. Davenport and Albert G. Love, Army Anthropology, p. 113, 1921. *The Medical Department of the U. S. Army in the World War*, XV, Statistics, pt. 1.

It is proposed to consider here the problem of Ona and Yahgan anthropometry only so far as deductions may be made from the accompanying table and from information as to the environmental factors which seem to be important. First of all it is apparent that the Yahgan as a group are less homogeneous than the Ona, particularly in the case of the males. How may this difference in variability be explained? The conditions of diet, occupation, climate, etc., are somewhat different from those obtaining in the case of the Ona, but presumably quite uniform for the entire Yahgan group. Indeed it would appear that the life of the Ona is much more varied than that of the adjoining tribe. The Yahgan are canoe people, but it does not seem probable that their life in boats and on the shore would tend to diversify them in physical type any more than the roaming life of the Ona. I think we must admit that the Yahgan owe their greater variability probably to the presence of more diverse physical types of an hereditary character than are found among the Ona. By this I mean that two or three, or more perhaps, of the various elements which have blended to form the composite "Indian" race in America, are found among the Yahgan, whereas in the Ona we have to deal either with a single type or with a group in which one single type overwhelmingly predominates. 143

In a "refuge" area one may expect to find all sorts of samples of the weaker and more primitive populations which have, from time to time, inhabited the continent. These odds-and-ends are likely to have been reduced to a certain homogeneity through isolation which brings about inbreeding and through selection. Both of these factors are notably operative in Tierra del Fuego. I think that it is an assumption justified by the evidence that the earliest inhabitants of the New World were short dolichocephals and that these were followed by short brachycephals. Among the Yahgan we have a fusion of two such elements, just as we have, to cite another instance, in Pueblo peoples of southwestern United States.

143 We must however consider the possibility that the canoe life of the Yahgan has tended to exercise a selective influence on their stature. Small men are less likely to fall out of small and primitive canoes than are large and unwieldy men. Great length of legs (which always distinguishes tall persons) is a great disadvantage in such craft. We are given to understand that the Yahgan women swim well and the men not at all. If this is true, it is conceivable that the shorter elements in this population have survived because the larger men proved to be too awkward for canoeing and were consequently eliminated by drowning. But this would necessitate the assumption that the large women were also eliminated or that they failed to transmit their large stature. While it is perfectly true that a large woman and a small canoe make a bad combination, it is equally true that a large woman makes as good a floater or swimmer as a small woman, and even a better.

However, there is another possibility that is worthy at least of mention. The legs of the Yahgan may have been shortened as a result of their boating habits. It is perfectly easy to suppose that a man who spends most of his time sitting in a canoe will have poorly developed legs, as have the Yahgan. It is not at all certain, however, that disuse of the legs for purposes of locomotion would necessarily decrease their length. And it is altogether improbable that such a decrease in leg length would establish itself as an hereditary characteristic. Moreover, the Yahgan are not merely "sawed-off" counterparts of the Ona. Not only are their legs shorter, but they are smaller in every way than their neighbors.

On the whole I am inclined to believe that the stocks which have blended to form the Yahgan were originally short-statured, short-legged peoples, and that, although canoe life may have operated to some extent to eliminate the taller individuals, the stunted stature of this people is in the main a characteristic of the original stocks from which they sprung.

The Ona are one of the tallest people in the world if any reliance can be placed upon our compiled figures and upon the estimates of various writers. They are exceptionally homogeneous in stature and in cephalic dimensions and indices, but not especially so in facial measurements and indices. They are not canoe people, but range over a wide area on foot. Apparently they have a harder time in gaining their subsistence than do the Yahgan. Are we to suppose that these people have attained their commanding

height by the exercise of their lower limbs in walking? We do 143
not know that walking increases the length of the legs. Very tall men are not especially good walkers in the experience of modern armies; short men march more rapidly and endure better. On the other hand, there is nothing to lead us to suppose either that walking shortens the legs or that a life of wandering about on foot would tend to eliminate by some process of selection the short-legged strains. If one were to attribute the maximum imaginable effect to natural selection or to processes of atrophy and hypertrophy in altering either by selection or by the transmission of functional adaptations the hereditary leg-lengths of Ona and Yahgan, and if we brought ourselves to believe that some environmental agency had radically shortened the legs of the latter and lengthened those of the former, we should still be faced by a difference in stature between the two groups altogether beyond the adequacy of such an explanation. The Ona males are more than 17 cm. taller than the Yahgans!

At this point we may inquire with Cassius:

> "Now, in the name of all the gods at once,
> Upon what meat doth this our Caesar feed
> That he is grown so great?"

If we take into consideration the dietetic differences between the 146
Ona and the Yahgan (see Table II), we observe that the outstanding
fact is the dependence on the flesh of the guanaco by the Ona as 143
contrasted with a reliance on mussels as a staple on the part of the Yahgan. Guanaco seems also to have been the principal article of diet of the Patagonian Tehuelche, who, according to reports, were as tall as the Ona, if not taller (mean stature of males 175 cm., according to Moreno and Lista). Yet it is hardly worth while to toy with the supposition that the statural differences between these groups are a matter of camel-meat versus shell-fish, especially since the ethnographic authorities seem to think that the Ona have a harder time in getting sufficient food than their stunted neighbors.

More promising perhaps is the factor of artificial selection in the 143
warlike pursuits of the Ona. If it could be shown that the smaller and weaker of these people had been eliminated as a result of warfare, our problem would be solved. But in spite of the fact that the Ona are said to be more warlike than the Yahgan, it does not seem reasonable to ascribe their stature to military selection. There is no evidence, so far as I know, which would justify such a

conclusion. Nevertheless, the statistical homogeneity of this group does argue that some sort of selection has been at work. The Ona men are said sometimes to take Yahgan wives, and if this is true we should expect some at least of the offspring of such unions to be short. The Ona women are, however, almost as tall for their sex as are the men. Could it be possible that the Ona practise infanticide upon undergrown specimens of their race? There is no evidence that such is the case.

It is reported that the Ona of Tierra del Fuego are not alone in their attainment of an unusual bodily size, since animals transported to this region far exceed the size and bulk to which they ordinarily grow in other places. For example, it is stated that the guanaco in Tierra del Fuego is larger than the same animal farther north in the Andean area. Also it is said that foxes grow large and that imported English cattle produce gigantic offspring. If this be the case, it is very difficult to account for the stunted Yahgan who have practically the same environment as the Ona.

Most anthropologists ascribe the size of the Ona to their probable relationship with the Patagonian Tehuelche, to whom they are also allied culturally. In other words, the size of the Ona is thought to be a matter of heredity. As a matter of fact this explanation seems to be the only possible one unless some physiologist can demonstrate that the slight differences between Yahgan and Ona diets are directly responsible for their disparity in size. Even more striking instances of statural difference within the same environment occur in East Africa and the Lake region where the shortest pygmies known live cheek-by-jowl with gigantic Hamito-Negroids, the tallest people in the world.

Tall stature is generally a matter of heredity, and it is thought by Davenport that certain growth-repressing factors are dominant over their absence, inasmuch as he found high variability in short families as contrasted with tall families. If this is correct it is possible that the stature of the Ona is an expression of a recessive feature in a relatively pure stock. But the Ona are said occasionally to take Yahgan wives, and the variability of their facial and nasal indices is scarcely indicative of purity of race. We must consider also the hypothesis of heterosis or hybrid vigor, whereby hybrid offspring often exceed both parents in bodily size. But heterosis does not manifest itself always in human crosses. It does not occur, for example, in crosses between Hawaiians and Chinese, are apparently in most Negro-white crosses. There is, moreover, no evidence in the case of the Ona of any recent admixture with another stock except perhaps the Yahgan, who would scarcely be expected to contribute factors making for gigantic stature or even to maintain the average stature of any ordinary group with which they interbred.

I should be inclined to the speculation that the high stature of both Tehuelche and Ona is the result of the predominance in them of a tall and probably brachycephalic strain belonging to one of the later waves of immigrants into South America. I am of the opinion that this tall brachycephalic type, which occurs elsewhere in the New World, resulted from the intermixture of a brachycephalic type of medium stature with a tall dolichocephalic strain. It would appear that in this particular cross tallness was dominant. This is, admittedly, a speculation, but it is not based merely on a short consideration of the inadequate and second-hand anthropometric data on the Fuegians here presented. I do not pretend to be able to prove this contention, nor can I say exactly what "races" were involved in this postulated cross. I think, however, that the Mongoloid element in the American Indians came largely from the brachycephals, and that the tall dolichocephals were neither Negroid nor Mongoloid. Nor do I assume that the crossings which gave rise to this tall "hybrid" type necessarily took place in the New World; many of the American Indian groups included in this type may have originated in Asia.

We really need a good deal more of information about the effect of diet and climate on physical type before we can confidently dismiss the remarkable size contrast between the Ona and the Yahgan as a mere matter of hereditary difference. I should want more precise information about certain morphological characters of these two groups before committing myself finally to the opinion that they represent distinct racial combinations. However, upon the present showing I incline to the opinion that the size differences discussed above are primarily the result of hereditary factors, accentuated perhaps by occupational selection tending to make for shortness in the Yahgan and for great stature in the Ona.

[pp. 48-115 contain no data on the Yahgan.—Analyst]

PART II

CANOE INDIANS

THE YAHGAN

101 THE Yahgan Indians, the southernmost people in the world, lived on the southern shores of Tierra del Fuego from Brecknock peninsula to Spaniard harbor, and on the adjacent islands southward to Cape Horn itself (pl. IV). In spite of the tempestuous waters they confronted, they were a seafaring people and derived their livelihood almost entirely from the sea and its beaches.

172 Like the Ona, the Yahgan had to move freely and frequently in search of sustenance, but their camping-places were limited by the fact that each family was dependent on a fragile bark canoe, for which shelter must be provided. Thus favorable stretches of beach today are marked by great refuse-heaps, of most extraordinary size when one recalls that they represent only temporary stopping-places and that no family ever camped on a spot where it was known that a death had occurred. Centuries or even milleniums must have witnessed the building up of these vast agglomerations of bone and shell.

177
797 The Yahgan came under missionary influence in the middle of the nineteenth century, and a permanent mission station was maintained among them from 1870 until recently. Hence their culture was much modified before they could be studied by trained ethnologists. For instance, by the eighties they had modified their initiation rites. We must add that among the Ona those without missionary training tended to survive the longest, but among the Yahgan the last survivors have almost invariably been mission reared.

142 Writing nearly a century ago, Fitzroy (pp. 137–139, 186) thus describes the untrammeled Yahgan of his day:

> The Tekeenica, natives of the south-eastern portion of Tierra del Fuego, are low of stature, ill-looking, and badly proportioned. Their color is that of very old mahogany, or rather between dark copper and

142 bronze. The trunk of the body is large in proportion to their cramped and rather crooked limbs. Their rough, coarse, and extremely dirty black hair half hides yet heightens a villainous expression of the worst description of savage features. . . .

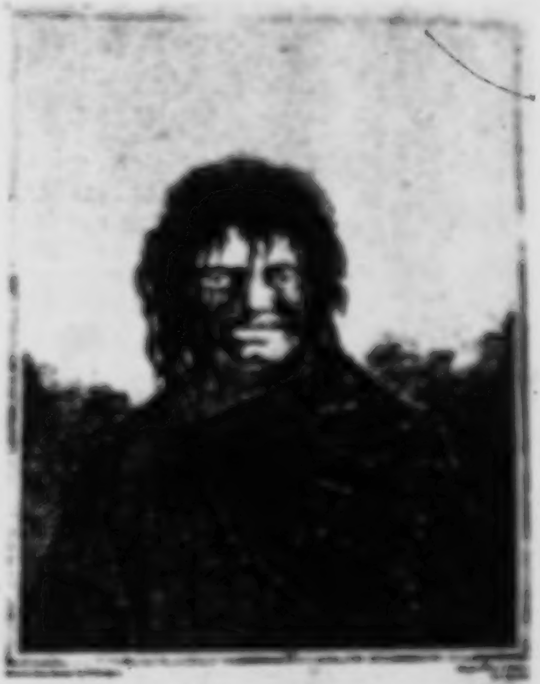
MAN IN CHRISTMAS SOUND, TIERRA DEL FUEGO

FIG. 42.—Yahgan Indian. (After Hawkesworth.)

291 Sometimes these satires upon mankind wear a part of the skin of a guanaco or a seal skin upon their backs (fig. 42), and perhaps the skin of a penguin or a bit of bird hide hangs in front; but often there is nothing, either to hide their nakedness or to preserve warmth, except a scrap of hide, which is tied to the side or back of the body, by a string around the waist. Even this is only for a pocket, in which they may carry stones for their slings, and hide what they pick up or pilfer. A man always carries his sling around his neck or waist, wherever he goes.

291 Women wear rather more clothing, that is, they have nearly the whole skin of a guanaco, or seal, wrapped about them, and usually a diminutive apron. The upper part of the wrapper, above a string which is tied around the waist, serves to carry an infant. Neither men nor women have any substitute for shoes.

302 Both sexes oil themselves, or rub their bodies with grease; and daub their faces and bodies with red, black, or white. 301 A fillet is often worn around the head, which upon ordinary occasions is simply a string, made of sinews; but if going to war or dressed for show, the fillet is ornamented with white down, white feathers, or pieces of cloth, if they have obtained any from shipping. . . .

411 It is rather curious that each of these natives is trained to a particular pursuit: thus, one becomes an adept with the spear; another with the sling; another with a bow and arrows; but this excellence in one line does not hinder their attaining a considerable proficiency in all the others.

266 Before entering on the details of Yahgan life we shall dwell briefly on the charges of savagery and cannibalism made by numerous writers. As early as 1600 the *Alacaluf* were thought to be cannibals, for in that year Van Noort marooned on Santa Maria island one of his officers charged with insubordination, in the belief that he would die of hunger or be eaten by the savages. A quarter of a century later Jaques L'Hermite charged the Yahgan with cannibalism. In more recent years Darwin and Fitzroy have repeated the accusation on hearsay evidence, and their dictum has been widely published. However, no white man has ever witnessed the act of anthropophagy among any of the Fuegian tribes, while in recent years those who have lived with the natives and come to know them well all agree that the idea of eating human flesh is as repugnant to a Fuegian as to a European. According to Martial (p. 192) the Yahgan ordinarily do not eat dog, fox, or rat, because these animals will eat human flesh.

648 The imputation of barbarity, on the other hand, rests on firmer ground, for there are well-authenticated instances of attack by the Yahgan on European crews. The earliest of these resulted in the death at Nassau bay in 1624 of seventeen men from L'Hermite's ships; the most widely published was the massacre at Wulaia in 1859 of the crew of the missionary schooner *Allen Gardiner*. What preceded these attacks is a secret interred with their victims. Early voyagers habitually kidnapped natives to serve as pilots and thus aroused merited resentment. Native women often have

been a source of contention. Intelligent and amicably intended travelers through ignorance of native customs may easily wound native feelings to the point of rousing open hostility. Of the looting of ships and robbing of their crews, it is but just to remark that the Yahgan, although recognizing personal property, habitually shared their provisions with one another. Also, among primitive people in general the robbing or tricking of strangers alone is considered entirely ethical or even especially deserving of praise, though the same performance at the expense of a relative or a friend might be condemned. The Yahgan have suffered in public esteem because their morality has been judged on the basis of Christian ethics.

Language

The Yahgan tongue, although it has been studied since the visit of Darwin, as yet is thought to be related to no other New World language. Through missionary labors, chiefly those of the Rev. Thomas Bridges, three large vocabularies have been compiled. Of these one containing about 4000 words on 117 pages in Mr. Bridges' handwriting is still in possession of the Bridges family in Tierra del Fuego. It covers only eleven initial letters. Inside the front cover is written: "Begun this June 19th, 1878." A second vocabulary compiled by Mr. Bridges, aided by several lay members of the English mission, contains about 12,000 words. It is now in possession of the Rev. John Williams in Punta Arenas. Finally, there exists in Belgium a Yahgan vocabulary in two volumes of about 32,430 words written on 1081 pages. It is the result of Mr. Bridges' life-long contact with the Yahgan extending from 1858 until his death in 1898. During his later years, according to his sons, he was continually working over this manuscript. After his death it was lent to Dr. Frederick A. Cook, who had been to Tierra del Fuego with the Belgian *Antarctic* expedition in 1897 and 1899. Cook removed the manuscript to Belgium, where it has since remained. Plans for its publication were interrupted by the World War.

For printed source-material in Yahgan, students are further indebted to Mr. Bridges for translations of the gospels of St. Luke and St. John, and the *Acts of the Apostles*. All these, as well as his manuscript dictionaries, are written in the Ellis alphabet. The Rev. John Williams of Punta Arenas has translated the collects and morning and evening prayers into Yahgan, and also has

185 published a broadsheet with the Lord's prayer. Both are written in the ordinary alphabet with a ˘ to denote the short vowels and soft g.

186 As for the nature of the Yahgan tongue, in direct contrast to Ona, it is soft and pleasant to the ear. There is a great abundance of vowel sounds, and the pronunciation of consonants presents no difficulties. The line between *p* and *b* is loosely drawn. There is a soft and a hard g, and also a soft *ch* sound [illegible].

187 According to Mr. Fred. Lawrence, of Remolino, generally regarded as the best living authority on the Yahgan language, in the old days there were five distinct dialects, distributed as follows:

1. Central dialect, including Ushuaia and Murray narrows. This is the speech recorded in the Bridges dictionaries.
2. Eastern dialect, spoken from Harberton eastward and on Lennox island, New island, etc.
3. Western dialect, found from Cape Divide westward.
4. Wollaston Islands dialect.
5. New Year's Sound dialect, spoken to the south and west of False Cape Horn and on the southern part of Hoste island.

These dialects are said to have differed from one another as much as Scotch from Cockney; that is to say, they were mutually intelligible but there was wide variation in accent and the choice of words. Thus the double-barbed harpoon is [illegible] in the west and [illegible] in the east; the fish-spear is [illegible] in the east and [illegible] in the central dialect; bark of the *Nothofagus betuloides* is [illegible] in the east and [illegible] at Ushuaia; a sling is [illegible] in the east and [illegible] in the central dialect, etc. Today it is difficult to know just what dialect one is hearing, because the few surviving Yahgan live together much of the time and have fused their speech. However, the fact that considerable divergence once existed within such a small geographical limit indicates that but little movement of the tribe as a whole had taken place for centuries, at least.

188 The Yahgan words in the present text were obtained chiefly from Mr. William Bridges and Mr. Fred. Lawrence, who speak the central dialect; from William, born at Halupai (see fig. 98); from Walter, a Lennox islander; from Charley, son of a Haush called Ishiah and a Yahgan woman; from Mary, a westerner. The four Indians mentioned were all mission-reared and therefore today

speak the central dialect. The entire vocabulary was checked by Mr. William Bridges and any words not in the central dialect were noted. 115

The richness of the language is indicated by the more than 32,000 words brought together by Rev. Thomas Bridges. Many of these words, of course, are compounds, but such a vast number are fundamentally due to unusual specialization in meaning. 192

On the other hand, Yahgan exhibits the lack, usual among primitive people, of abstract ideas and generalizations. In fact, even in English (which, due to missionary training, some of the Indians spoke fairly well) the Yahgan exhibited inability to grasp the concept of generalities.

The manner of counting was even more primitive than the Ona count, for the Yahgan had no words for 4 and 6, which, to be sure, were compound numbers in the primitive Ona system. The Yahgan count is: 302

1.	*hikóli*	one
2.	*kambalbi*	two
3.	*matén*	three
5.	*hikóli iírsh*[1]	one hand
10.	*kambaí iírsh*	two hands

CLOTHING

From Fitzroy's description of the Yahgan, cited above, it appears that there was very little order or regularity in their scanty dress. However, though seemingly inadequate, their clothes were of well-defined forms which we shall describe. It is no exaggeration or overstatement to remark that, considering the climate in which they had to live, this southernmost tribe had less body-covering than any other people in the world. As compared to the Ona, their garments, similar in nature, were deficient in size, while the stiff and unyielding skins they employed from their very nature lacked the warmth supplied by the pliable, voluminous, and snug-fitting robes of the Foot Indians. We must add that individuals of both sexes and all ages often went entirely naked. 291

1. CAPE.—The usual cape worn in summer and winter alike by both men and women was a seal or sea-otter skin. Sometimes two

[Text Continues on page 123]

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[1] Bove gives the word *cupaupa* for 5. It was not known to any Yahgan Indian or member of the Bridges or Lawrence families encountered by the writer.

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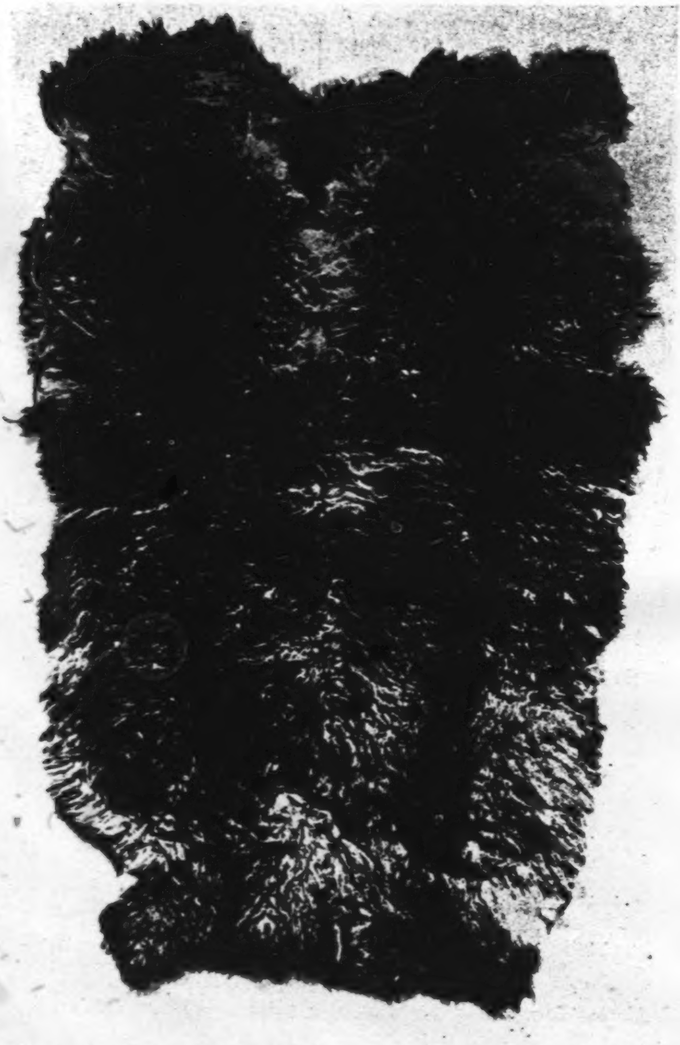

FIG. 43.—Yahgan guanaco cape. Size, 35 by 50 in. (14/2251)

or more were sewn together. In general, however, this garment extended only to the waist and did not completely encircle the body. It was tied across the chest with thongs. When out-of-doors it was worn over the windward shoulder. And these people dwelt in a latitude corresponding to that of the Aleutian islands and Labrador! 291

The eastern Yahgan at times wore capes of guanaco-skin which were better suited to the cold. One of these (fig. 43) we illustrate; it does not attain the size of the Ona robe shown in fig. 6. The western Yahgan and the Alacaluf used skins of the coypu, a small land-otter known to the Yahgan as *saiapai*.

2. Pubic Covering.—A triangular pubic covering of skin (*múshwalána*) was usually worn by the women (fig. 44).

291
294

3. Moccasins.—The Yahgan often went barefoot, but at times they wore moccasins of seal-skin (*kíli*), which resemble the guanaco-skin footwear of the Ona, but are not made in quite the same way (fig. 45). To begin with, a piece of skin shaped like a truncated triangle is cut out and trimmed to the proper size. This lacks the attached heel-strap of the Ona moccasin (fig. 8, *a*). Holes are made across the large end (fig. 46, *a*), which is fitted snugly around the heel. A short strap is then looped through the upper pair of holes (fig. 46, *b*) and the heel sewn together. Holes are pierced on the long sides; these are doubled over and laced in the Ona fashion with a strap across the toes and across the instep. These moccasins are worn with the hair-side outward and are stuffed with grass. The writer found them when wet even more foul than the guanaco moccasins, and neither so warm nor so comfortable for walking.

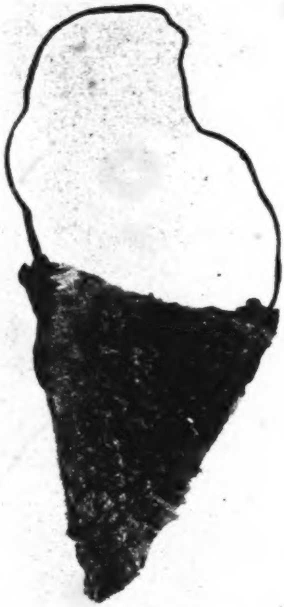

Fig. 44.—Yahgan pubic covering. Width, 9 in. (14/2356)

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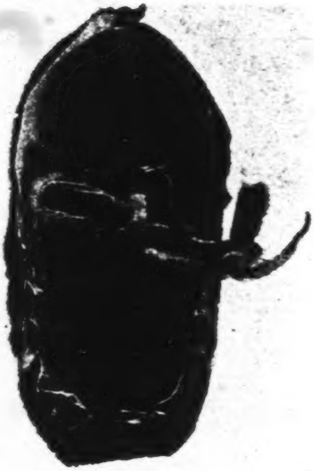

FIG. 45.—Yahgan moccasin. Length, 11 in. (14/2346)

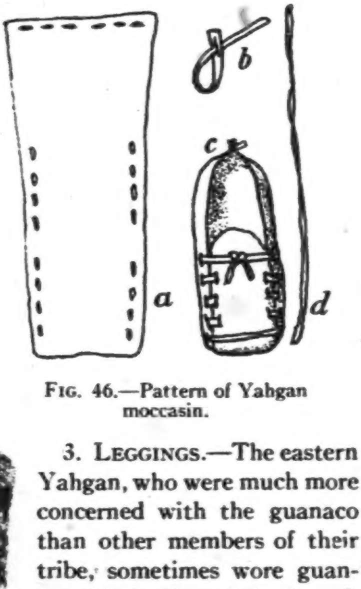

FIG. 46.—Pattern of Yahgan moccasin.

3. LEGGINGS.—The eastern Yahgan, who were much more concerned with the guanaco than other members of their tribe, sometimes wore guanaco-skin leggings (*páwa*), such as fig. 47, for winter hunting. This garment was also sometimes used by the Ona, from whom the Yahgan probably borrowed it.

ORNAMENTATION

The Yahgan used no set form of hair-dressing, but allowed their locks to fall in a confused mass, except over the forehead where the hair was cut to form a bang. Facial and body hair they pulled out with a pair of mussel-shells.

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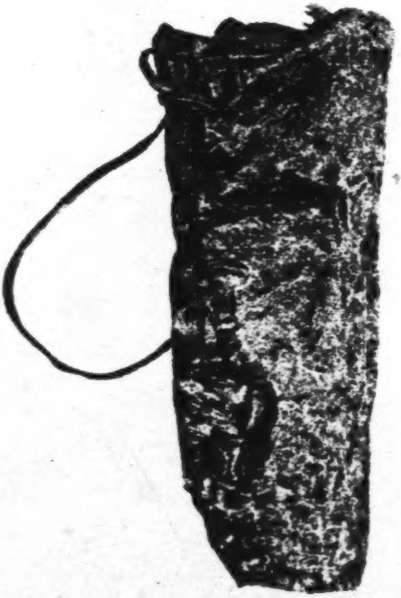

FIG. 47.—Yahgan legging. Height, 13 in. (14/2266)

The chief form of decoration seems to have been facial and body painting, which was freely employed in the old days. The materials used are mentioned below. While paint was often applied with the finger, an elaboration over the Ona practice is seen in the use of a small spatula (*telákikamána*). One of these is illustrated in fig. 69, *d*. The Yahgan did not tattoo.

Feather diadems and goose-down forehead caps were worn at times, but their purpose was more ceremonial than utilitarian or decorative, and will be discussed below.

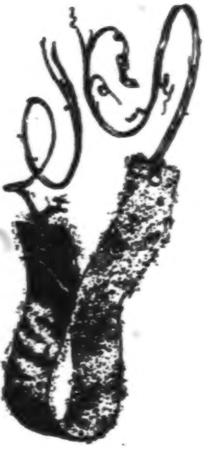

Fig. 48.—Yahgan guanaco-hide wristlet. (14/2358)

Wristlets and anklets were worn, but not so generally as among the Ona. The common type (*maɬamasár*) is not braided of grass or sinew in Ona fashion, but consists of a narrow band of guanaco-hide painted white (fig. 48). This was attached in place with small sinew laces.

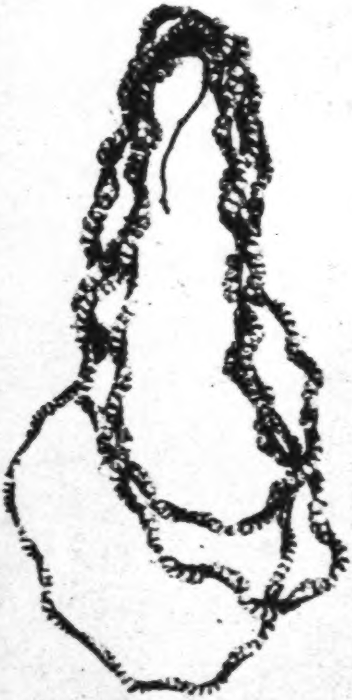

Fig. 49.—Yahgan shell necklace. Total circumference, 96 in. (14/2341)

Of necklaces the Yahgan made two kinds. The simpler type is constructed with cylindrical sections cut from the leg-bones of gulls or of ducks and strung on braided sinew. A more elaborate and attractive necklace (*opúrrshka*) they made from small shells (Latin, *Photinula violacea;* Yahgan, *haúsh undálu*) found in the kelp (*haúsh*) which fringes the coast (fig. 49). When polished by use, beautiful opalescent tints appear in these shells. The Yahgan strung them by punching

301 a small hole near the lip of the shell. Through these holes a braided sinew cord was run, doubled back on itself, and lashed with spiral wrappings of sinew. This method of stringing is illustrated in fig. 50. The shells thus united are always graded according to size, sometimes with the biggest shell at one end and the smallest at the other, sometimes with the big shells in the middle and the small ones at either end.

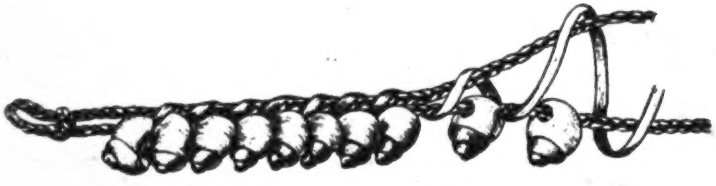

FIG. 50.—Detail of Yahgan shell necklace. Length of shells, one-half in. (14/2339)

USE OF PAINT

386 822 Like the Ona, the Yahgan made regular use of a red paint (*ími*) obtained by burning earth, a black paint (*yapúshak*) made of charcoal, and a white paint (*tum·rápo*) of clay. According to Fitzroy (p. 177) and Dabbene (1907, p. 58) these colors have symbolic significance. Thus, white was the sign of war or ceremonial display, black was the mark of grief and mourning, while red denoted peace and happiness. With their paints the Indians 531 adorned their persons, their dance masks, their ceremonial lodges, and some of their tools and utensils. The latter were often embellished with solid color, but body, dance masks, and ceremonial lodges were made the field for painted designs.

In pl. IX is shown a selection of patterns taken from the frame of a ceremonial lodge. No simpler motives of artistic significance can be achieved, for these designs are mere smudges of color applied with thumb or finger. The elements are a dot, a short line, and, in one instance, a circle. Two lines are combined to form a cross, a T, and a chevron. Design units repeat themselves in simple rhythm.

Dance masks are illustrated in figs. 92 and 93. Their designs, though of symbolic significance, are again abysmally primitive. Facial painting may be studied in the photographs published by Koppers (1924); they are similar to the patterns here described.

3: Lothrop E-5 (1924-1925) 1928

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LOTHROP—TIERRA DEL FUEGO

PL. IX

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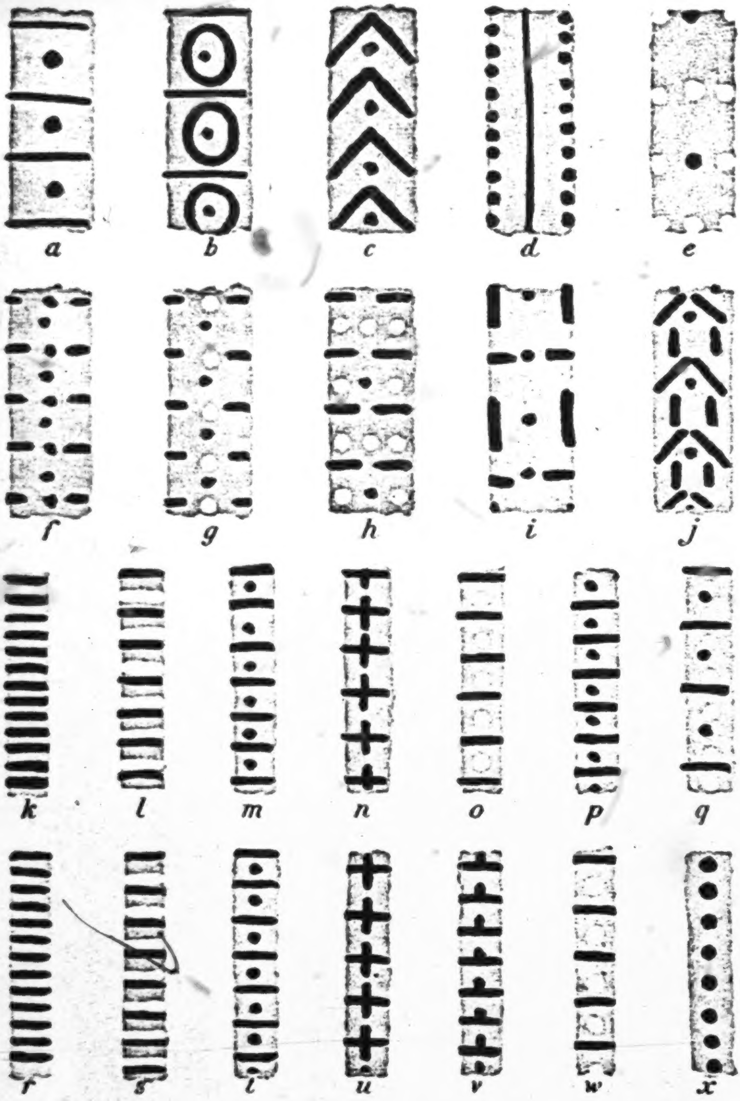

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YAHGAN PAINTED DECORATION

[p 126-A]

The Encampment

291 342 Yahgan clothes were less suited to the climate than those of the Ona, because they were smaller and gave less bodily protection, and because the skins they used were less suitable for their purpose. Thus, guanaco-skin, regularly employed for Ona robes, is thin and flexible, so that it will readily conform with the contours of the body, while the hair is heavy, so that it will shed water and preserve warmth. In contrast, seal-skin and sea-otter skin of Yahgan capes has a heavy and stiff hide and short hair, and therefore gives less protection. As a result of this disparity, to maintain life the Yahgan had to have more shelter than that afforded by an Ona windbreak. And possessing the means of water transportation they could handle heavier equipment than their inland neighbors, though, to be sure, their bark canoes were small and frail to bear much cargo in addition to the human freight.

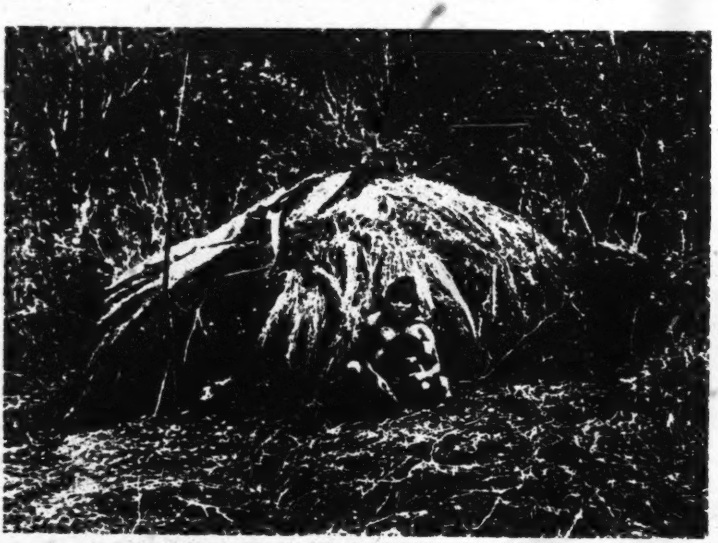

Fig. 51.—Yahgan house. (After Hyades and Deniker.)

342 Normally the Yahgan lived in a wigwam known as *ákharh.* In the west, like the Alacaluf hut, this was usually a domed affair about the size and shape of a large haycock, framed with saplings set upright in a circle or oval and then bent inward until they met

342 (fig. 51). Farther east the wigwam more frequently was pointed, for it was constructed of poles too thick to be bent. The introduction of the ax has increased the use of the pointed house form. Both kinds of houses were covered in summer with leaves, bark, kelp, grass, or whatever was handy. But during the winter months it was necessary further to break the force of the wind, and so the wigwam was overspread with a roof of seal-skins sewn together (*kaikis*). This was a heavy and cumbersome object to handle, and hence was usually divided into two or even three sections, each of which could be transported in a separate canoe. Thus each house sheltered two or sometimes three families, usually closely related. In such a dwelling one family lived on each side, separated by a door facing the beach, a central fire, and sometimes a second door at the rear. The entrances could be closed with a flap of seal-skin.

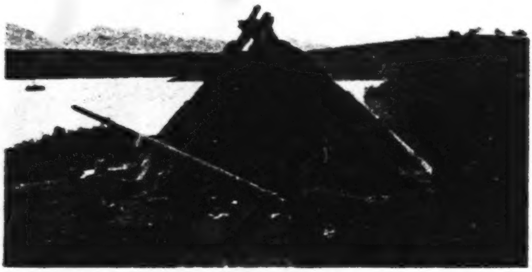

FIG. 52.—Modern Yahgan house.

In recent years the Yahgan have used in summer a log tipi covered with burlap. The small burlap-covered shelter shown in fig. 52 was occupied by eleven individuals in the summer of 1923–24. Thus housed they have had immeasurably poorer protection from the weather than in the days when hunger drove them to secure many seals and consequently many seal-skins were available for housetops.

342 354 The Yahgan kept their houses warm by building the tops low, for they appreciated the fact that heat rises. To take further advantage of this propensity they scooped out the floor to a depth of two or three feet or more. Thus the fire could be placed at the bottom of the pit while the inmates occupied a higher level, where bunks were outlined with logs held in position by stakes driven in the sloping floor. In old camp-grounds where the accumulated shell and ash gave excellent drainage, the pitted house floors reach

as much as five feet below the surface. Here the housetop need 342
scarcely have risen above the ground level, and the people within 354
must have been snugly lodged against winter gales. But the swirling smoke was a constant annoyance, and many accounts speak of the Yahgans' red and inflamed eyes.

Initiation or ceremonial houses differed from the living houses 346
chiefly in size. In the west they were domed and oval in outline, as shown in pl. XIV. In the east they took the form of a heavy solid tipi-shape dwelling of logs like the Ona initiation lodge (fig. 38).

Under mission influence the Yahgan in late years built small 177
plank houses of European type. A group of these was found at
Puerto Mejillones and Porto Piedra on Navarin island which were 342
used as winter quarters (pl. XVIII). They were wind- and water-tight, and some had wooden floors, bunks, and stoves. The material for their construction was begged, stolen, or picked up on the beach.

Camp Equipment

Yahgan camp equipment, in spite of superior transportation 511
facilities, was just as primitive as that of the Foot Indians, among whom every article, and the infants as well, had to be carried on the back. Strong and simple as are the objects below listed, they

[372]

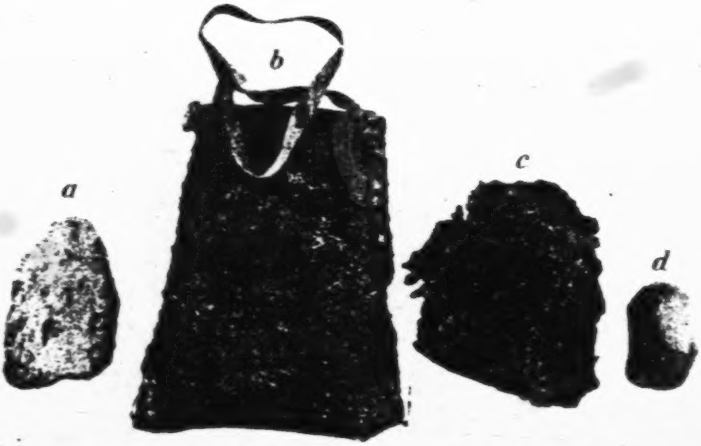

Fig. 53.—Yahgan fire-making apparatus. *a*, Flint; *b*, pouch; *c*, tinder; *d*, pyrites. Width of bag, 5 in. (14/2352)

511 afforded a basis for little more than the mere act of existence and mutely testify to the cultural poverty of their makers.

372 1. FIRE-MAKING APPARATUS.—By all accounts the Yahgan rarely made fire, because they carried it with them on the hearths in their canoes. In their semi-nude society to lack fire might mean death, and so wherever they went they tried to husband a wisp of flame. When it was necessary to kindle a new blaze they used flint and pyrites *(s'wálli)* with dried fungus or down for tinder, after the fashion of the Ona. Various places in Fuegian waters where pyrites can be secured are mentioned on page 65; one of these, Merton island, lies in Yahgan territory. However, Rev. Thomas Bridges states that they got this material by trade with the Alacaluf, who obtained it on Clarence island. Especially fine flints were found in a valley called Aníawaía between Lapataía and Ushuaia. To protect the fire-making apparatus from the weather it was kept in a small hide pouch called *asánu* (fig. 53, *b*).

[412]

[439]

[415]

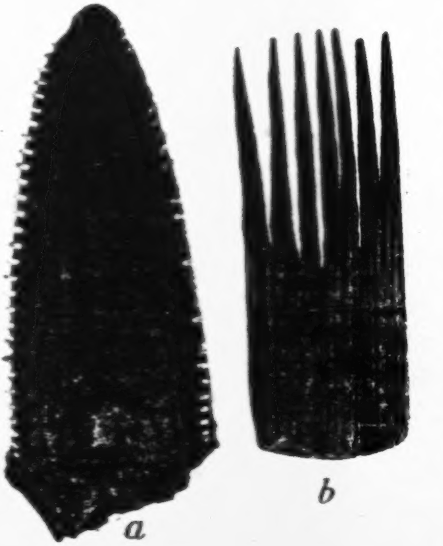

FIG. 54.—*a*, Porpoise-jaw comb; length, 6 in. (14/2370). *b*, Whalebone comb; length, 5½ in. (14/2374). *c*, Seal-throat pouch; length, 8½ in. (14/2369)

412 2. FIRE-TONGS. — For tending the fire and for removing the objects from it the Yahgan used tongs. These are no more than a stick an inch or so in diameter and a couple of feet long, split for three-quarters of its length. Cultural borrowing is indicated by the name of this implement—*láka* in Yahgan,

lákel in Ona,—but there is no means of determining which tribe was the inventor. 412

3. HAMMER AND GREASE STONE.—On old camp-sites numerous smooth, water-worn stones can be picked up. They were used as hammers to break open various shellfish, and also they served as anvils for cracking hot marrow-bones to allow the grease to solidify on the cool surface, whence it could be scraped up and eaten.

4. BROOM.—The Yahgan housewife today occasionally sweeps out her domicile, employing for that purpose the wing of some large bird such as a goose. This custom probably is not aboriginal, but is rather the result of missionary contact.

5. COMB.—The Yahgan sometimes comb their hair, and for this they make rude combs (*ushtánim*) of whalebone or employ the jaw of a porpoise. [302] Combs of both types are illustrated in fig. 54, *a*, *b*.

6. SPATULA.—Another article for beautifying the person, found in the well-ordered Yahgan house, is a small spatula (*telákikamána*) used for painting the face and body. One of these appears in fig. 69, *d*.

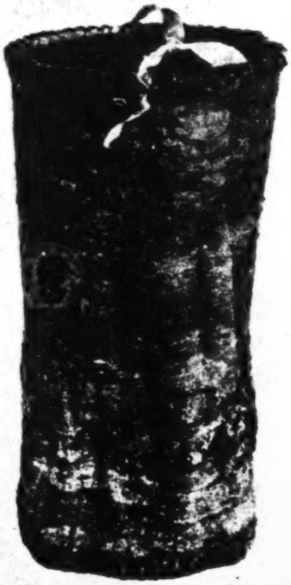

FIG. 55.—Yahgan bark bucket. Height, 12⅝ in. (14/2267)

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7. BUCKET.—Under the Ona manner of existence a bark bucket (fig. 55) would have been of little service, for it would soon be broken under the exigencies of their system of transport; but the Yahgan found the bucket (*atakála*) an extremely valuable object, and used it to bail their canoes and to store water in their camps. Like the canoe itself the bucket was made from the bark of the evergreen beech, but while the canoe was man's work, the bucket was woman's work. Hence the bark for the bucket was removed from the tree with the woman's barking tool (*téshupu*), which is a [412] chisel-like device made from the leg-bone of the guanaco (fig. 68). The inner fat lining of the bark was then scraped off, and a rec-

415 322 tangular piece was cut for the sides and a circular piece for the bottom of the bucket. Narrow strips of whalebone were then scraped thin and pliable, and the bottom and sides were sewn tightly together (fig. 56, *b*). Around the inside of the lip a strip of wood—*leña dura*, Winter's bark, or barberry—was introduced to give additional strength and to prevent the bark from splitting. Finally a hide thong was attached to serve as a handle, and the whole outside was painted red.

[283 516]

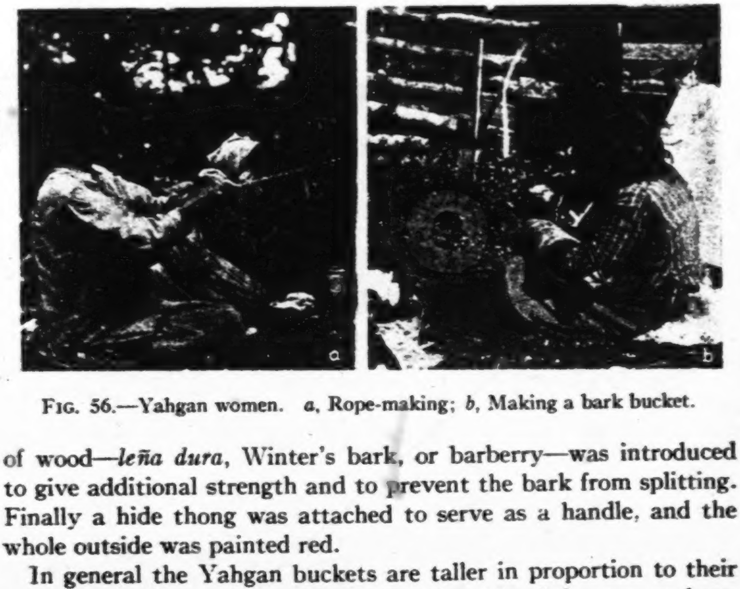

FIG. 56.—Yahgan women. *a*, Rope-making; *b*, Making a bark bucket.

415 In general the Yahgan buckets are taller in proportion to their width than those of the Alacaluf. The Alacaluf seem to have been better craftsmen than the Yahgan, hence their buckets are usually more neatly finished.

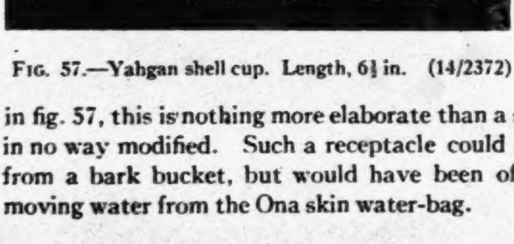

FIG. 57.—Yahgan shell cup. Length, 6¾ in. (14/2372)

8. CUP.—A Yahgan refinement over the Ona is the use of a shell cup (*auflán*). As seen in fig. 57, this is nothing more elaborate than a simple shell, its shape in no way modified. Such a receptacle could be used to dip water from a bark bucket, but would have been of little service in removing water from the Ona skin water-bag.

9. Pouches and Bags.—For storage the Yahgan used various pouches, bags, and baskets. While there seems to have been a tendency to employ the most readily available material, at the same time certain definite types of bags were normally used for distinct purposes. For general storage, bags were made from the skins of the seal, penguin, and guanaco. For keeping the fire-making apparatus, a small guanaco-hide bag covered with red paint was used (fig. 53, *b*). A larger bag of guanaco-hide (*humulúf*) covered with white paint was employed by the shaman to store his ritualistic paraphernalia (fig. 94). For porpoise- or whale-oil, containers were made from water-proof substances, such as seal-gut (*kália*), seal-bladder (*athhlahání*), or a species of giant kelp (*shówen*) which grows around the seaward islands. In fig. 58 we illustrate an oil container of seal-gut. Red paint they habitually stored in small sacks (*yás*) made from the throats of seal (fig. 54, *c*). A recent invention is the otter-tail pouch (*yeten*) employed at the present time for carrying tobacco. 415

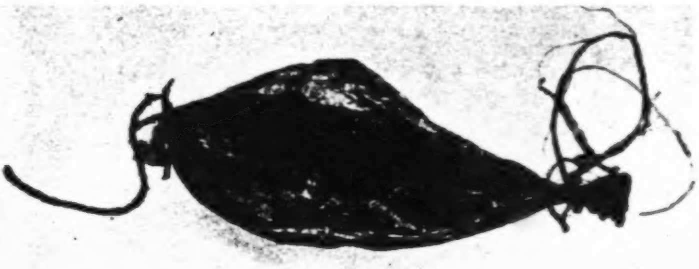

Fig. 58.—Yahgan seal-bladder oil container. Length, 7½ in. (14/2338)

10. Baskets.—All the Canoe Indians of Tierra del Fuego and the west coast of Chile to the north make baskets. This art is probably the most intricate technological achievement of the Yahgan, Alacaluf, and Chono, so that we shall consider the making of baskets in some detail. Among the Yahgan, the writer found that four types were manufactured, of which only one has been adequately described. Two of these are based on half-hitches around a coiled foundation; one has half-hitches without foundation; while the fourth, employed as a dip-net, is a wrapped stitch. 285

The material used for all four kinds of baskets is a native grass

(*Juncus magellanicus*) known to the Yahgan as *mápi*. This is a coarse, round-stemmed grass, about 18 inches in height, which resembles the grass of our saltwater marshes. It is picked by the women and carried to the encampment in long bundles. The handsomest baskets are those woven in the fall when the frost has changed the greens to red, but this brilliant color fades after a few weeks. During the course of manufacture, each grass-stem is chewed to flatten it and to make it more pliable.

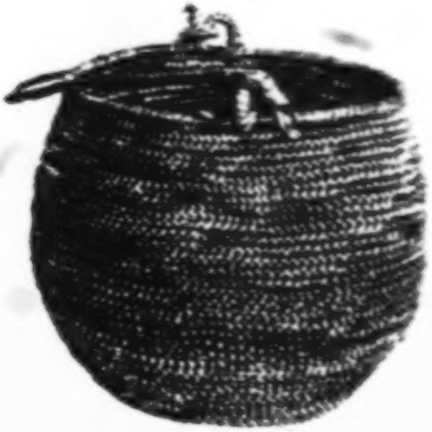

FIG. 59.—Yahgan basket of *tawéla* type. Height, 6 in. (14/2317)

In discussing the various kinds of Yahgan baskets below, the different weaves have been designated by their native names. These types are:

a. *Tawéla*.—This class of basketry, normally called "Fuegian basketry" in ethnological literature, is by far the commonest kind in use (fig. 59). It may be described as a half-hitch or buttonhole stitch over a coiled foundation.

The process of manufacture starts with selecting three or four stems of grass, placing them together, and bending them to form a little circle about half an inch in diameter which becomes the bottom of the basket. The loose stems forming this circle are

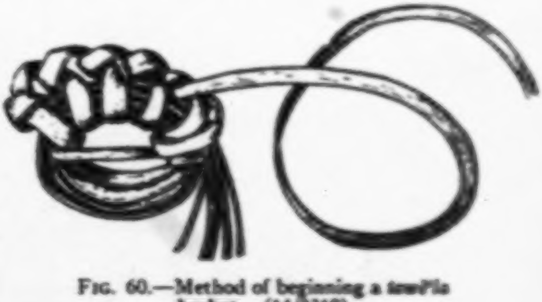

FIG. 60.—Method of beginning a *tawéla* basket. (14/2319)

3: Lothrop E-5 (1924-1925) 1928

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then lashed in place by a series of half-hitches, which leave the part of the foundation stems not included in the circle projecting at a tangent from it. Fig. 60 illustrates this initial step in the manufacturing process.

Next the projecting grass-stems are bent to form a second circle around the original one. In this position they are lashed by a second series of half-hitches, which are inserted through the loops of the first row with the aid of an awl (fig. 60). This process may be studied in fig. 61. It is repeated, additional grass-stems being added as necessary, until a circular piece of woven material two or three inches in diameter is created.

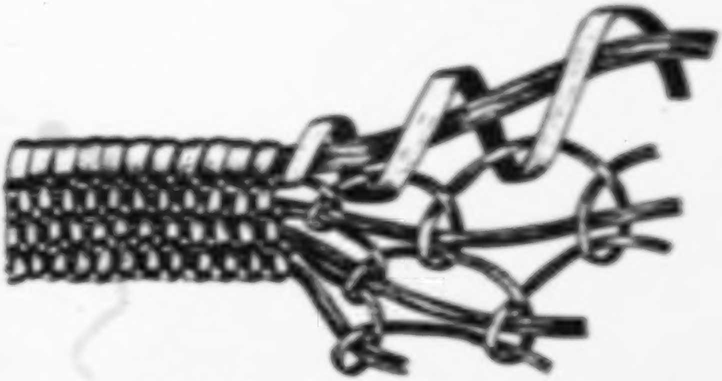

FIG. 61.—Detail of *tawe'la* basket. Height, 1 in. (14/2260)

At this stage it becomes necessary to curve the sides of the basket, so the finished fragment is suspended at a suitable height by passing a cord through the hole in the center of the base and tying it to a small toggle. In this position, mouth downward, both hands are free for the weaving, and the foundation coils can be controlled to give the desired shape.

When the body of the basket has been completed, the edge is finished by a simple spiral wrapping considerably broader than is used in the rest of the weaving.

Next, two loops are attached at opposite points of the rim, and also are covered with spiral wrappings. To these loops a handle of braided grass is fastened, and the basket is completed.

In comment on this kind of basket we should point out that coiled baskets are found along the entire west side of the New World in practically unbroken distribution, and also to the west across the Pacific. The Fuegian or half-hitch coil is also found across the Pacific, a fact that has given rise to much unrestrained speculation on the origin of the Fuegians. Variants of the half-hitched coil, somewhat similar to the *ulolnastiba* basket presently to be described, have been noted by the writer in Basket-maker collections from the Southwest and in collections from Kentucky caves, both of great antiquity.

Several authorities have argued that coiled basketry is not a very ancient type. With this the writer does not agree, because, in the New World at least, coiled basketry is the most widely distributed kind known, and also because it is almost the only type of basketry associated with the most ancient New World archeological finds now known. In other words, it seems to the writer that one would expect *a priori* that the basketry of an isolated and backward people like the Yahgan would be of the coiled variety.

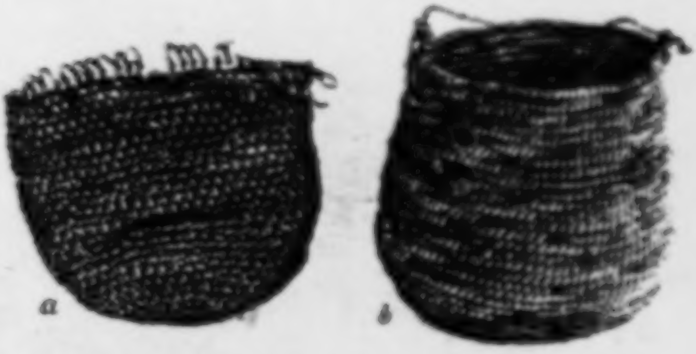

FIG. 62.—Yahgan baskets of *guiichim* and *ulolnastiba* types.
Height of *b*, 6½ in. (14/2312, 2288)

The hitch-coil is typical in South America only of the Yahgan, Ona, and Alacaluf, but it turns up sometimes in the Amazon valley and to the northward. A Surinam hat illustrated by Goeje [1] is woven in a fashion exactly like the Yahgan *tawi'la*.

b. *Ulolnastiba*.—This weave, illustrated in figs. 62, *b*, and 63, is very rarely employed among the Yahgan, and a single specimen was secured only with difficulty. Like the *tawe'la* weave it is a series of half-hitches built up over a coiled foundation, and the steps taken in the manufacture of the two types are the same. Also the rims and the handles in both types are identical.

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[1] *Intern. Archiv für Ethnogr.*, Bd. XVII, Suppl., 1906, pl. II, fig. 13.

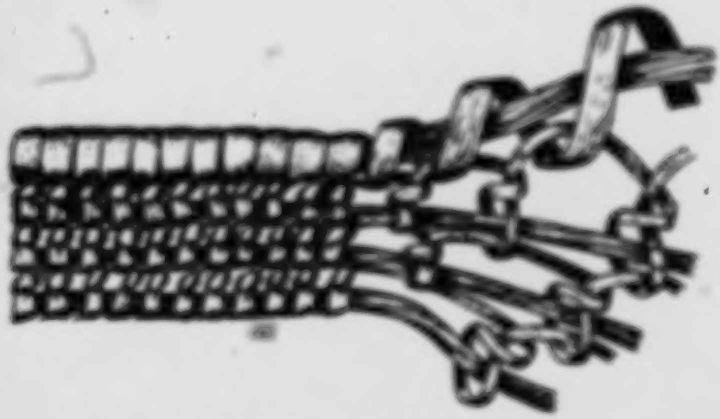

FIG. 63.—Detail of aiakuashiba basket. Height, 1 in. (16/2217)

The difference between the *tawe'la* and the aiakuashiba lies in the fact that the former is a simple half-hitch while the latter is a twisted half-hitch, for at each knot the weft takes a half-turn around itself. This distinction may be seen by comparing figs. 64 and 63.

More elaborate twisted-hitched-coiled baskets are found in Central America, notably among the Pipil and Lenca of Salvador, in collections from Pacific islands near the meeting point of Polynesia, Melanesia, and Micronesia, also in Africa, and among Bush negroes in the Guianas, and doubtless elsewhere. This world-wide distribution of the type leads to the belief that it may be an ancient form of basketry. The only exact New World parallel to the aiakuashiba which has come to the attention of the writer is an Alaskan specimen illustrated by Mason,[1] a bark vessel to which a wooden lip has been sewn in a manner identical with the Yahgan stitch.

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[1] *Aboriginal American Basketry, Rep. U. S. Nat. Mus. for 1902*, fig. 90, Washington, 1904.

c. Gutichim.—A third class of Yahgan basketry, not very common at least in recent years, may be described as a knotted weave without any foundation (fig. 63). The body of the basket is built up in a series of interlocking knotted loops, resulting in a soft and flexible container (fig. 62, *a*). In order to stiffen the basket and to secure a wide-open mouth, the rim is finished off in a series of loops and in these a circle of wood—Winter's bark or barberry—is inserted, as shown in fig. 64. To this rim is attached a three-member braided handle.

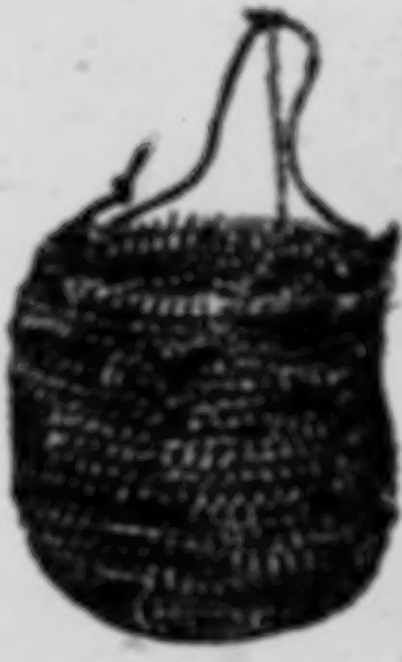

FIG. 64.—Yahgan basket of gutichim type. Height, [illegible] in. ([illegible])

When completed the gutichim often shows irregularities, so the interior is packed tightly with sand or small pebbles which are kept moist until the basket has assumed a symmetrical shape. The result of this stretching process is seen by comparing figs. 62, *a*, and 64.

d. Chimenich.—A fourth type of Yahgan basket, illustrated in fig. 65, was lashed to a pole and used as a dip-net for catching small fish. The completed net with the handle may be seen in the bow of the model canoe in fig. 72.

The *chimenich* consists of a circular opening of Winter's bark or barberry wood, to which four U-shape members of the same material were secured. The interstices were then filled in with strips of grass of the kind above indicated, looped about the solid frame.

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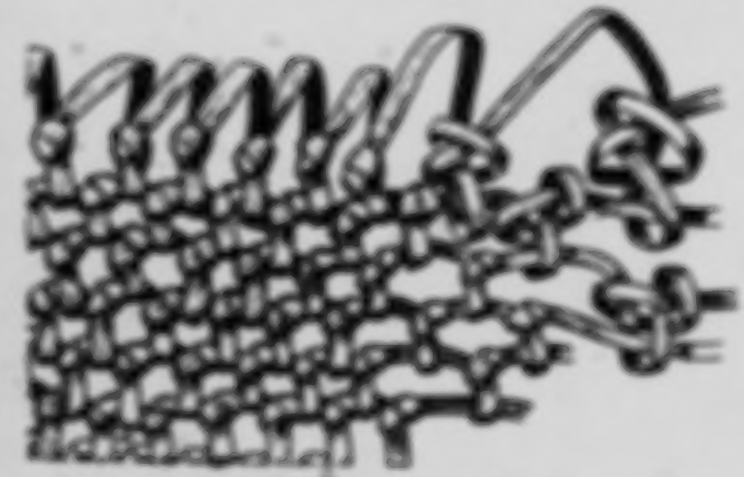

FIG. 65.—Detail of [illegible] basket. Height, 3 in. [illegible]

Tools

Yahgan tools are just as primitive as the Ona tools, although adapted to different uses. The Yahgan have a constant tendency when making something to pick up the first object that comes to hand—a bit of shell, a few-flaked stone—and employ it, rather than to take the trouble to get steel tools which would better serve their purpose. 402

1. **Scraper.**—The old-time Yahgan scraper [illegible] was a mussel-shell blade [illegible] set on a stone handle [illegible]. The shell blade was not the ordinary mussel-shell, but a giant variety [illegible], four or five inches in length, which now grows on the beaches of the outer islands toward the *Antarctic*. Formerly, however, it must have flourished on Beagle channel, as many examples were found in the interior of a shellheap at Harberton. To set this shell blade on the stone handle, the edges of the base of the shell were carefully broken away in order to reduce the curve and make the blade lie flat against the stone. However, the blade could not be attached directly to the stone, as it would have broken too easily; hence it was bedded on a small bunch of shredded barberry wood [illegible][1] or a wad of moss [illegible]. These two 402 [illegible]

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[1] This word was obtained from a Lennox islander. I am not certain whether it means "shredded barberry" or whether it is a dialectic variant of the correct

variant forms are seen in pl. x, a, b. For lashings on scrapers the Yahgan used either a seal-hide thong ([illegible], pl. x, a-c) or else a braided whale-sinew line ([illegible], pl. x, d) such as was employed for fishing.

Since the European settlement the natives have substituted a steel blade ([illegible]) for the shell wherever possible, and the resultant tool is called [illegible]. It is illustrated in fig. 66, a. They now also set the steel blade in a split wooden handle in the same fashion as the Ona, as can be seen in pl. x, c.

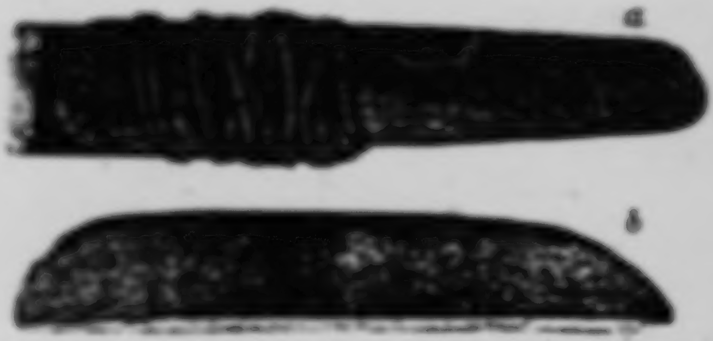

FIG. 66.—Yahgan scraper and whetstone. Length, 11 and 9½ in. (14/2367, 2323)

The scraper was the most important tool to the Yahgan and served a great variety of purposes.[1] Owing to the weight of the stone handle it could be used not only for scraping but also as a serviceable hand-ax. When the shell blade became chipped or dull it was sharpened on a stone ([illegible]) with a long flat surface (fig. 66, b). In type this scraper corresponds to the Ona wood scraper (fig. 25, a).

In the old days before steel was available, the Yahgan are said to have used a tool like the transverse Ona flesh-scraper (fig. 25, b). This was denied by Yahgans whom I questioned, but was affirmed by Mr. William Bridges, whose statement was supported by the discovery of ancient stone blades apparently designed for transverse hafting (fig. 106, b, c). The abandonment of the transverse scraper may be due partly to the use of steel, but also may be accounted

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[1] Yahgan [illegible], which means "barberry" in general (Berberis [illegible]). Shredded barberry was also employed as a towel after bathing.

3: Lothrop E-5 (1924-1925) 1928

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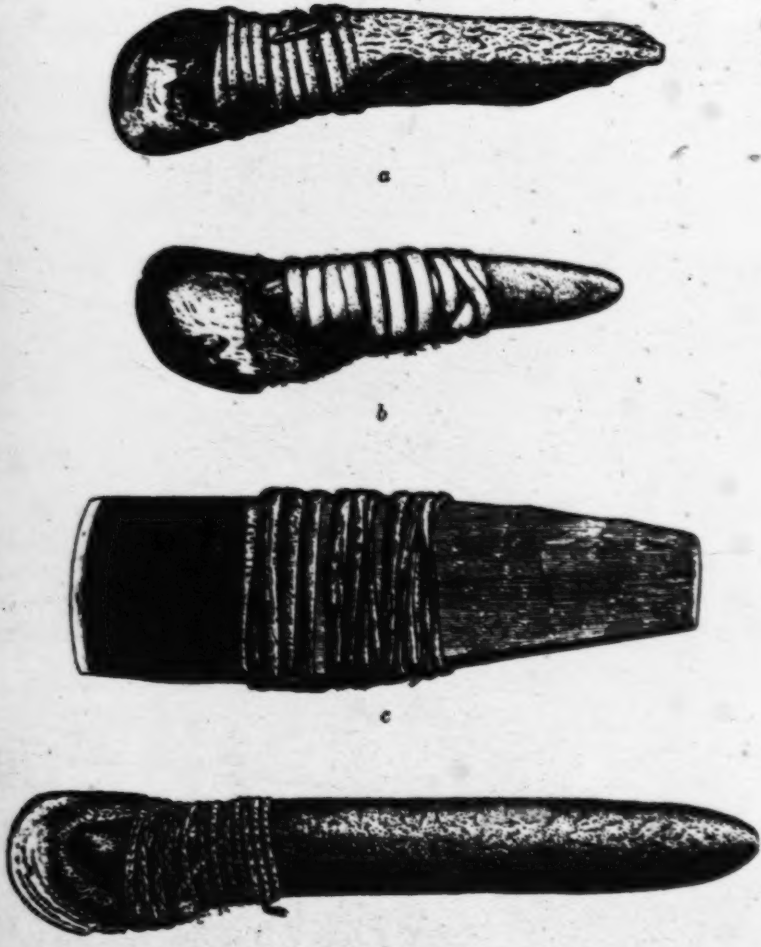

YAHGAN SCRAPERS

a, b, d, PRIMITIVE TYPE; LENGTH, 14, 10½, 9 in. (14/2364, 2366, 2365). c, MODERN TYPE; LENGTH, 6 in. (14/2368)

[p. 140-A]

412 for on the ground that since the Yahgan have ceased to use skin houses and skin clothing they have much less need of such an implement.

[177] 2. Knife.—Ancient knife-blades from Beagle channel are described on page 190. In recent years the Yahgan, like the Ona, have made knives from any available scrap iron or steel.

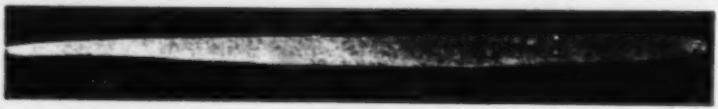

Fig. 67.—Yahgan man's bark-working tool. Length, 31 in. (14/2332)

3. Barking Tools.—The Yahgan employ two kinds of tools for removing bark from trees. One of these (*sánakaf*), used exclusively by the men (fig. 67), is made from a large piece of the jaw-bone of a whale and has a blade usually at each end. The woman's tool (*téshupu*) is part of a guanaco leg-bone and consequently is much smaller (fig. 68); it has a single chisel-like blade, while the other end, the articular extremity of the bone, forms a convenient handle.

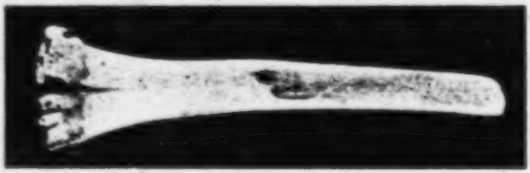

Fig. 68.—Yahgan woman's bark-working tool. Length, 9 in. (14/2331)

4. Awl.—The old-time awl (*ámi*) was a sharpened bit of wood or of bone (fig. 69, *c*, *e*), but in recent years the Yahgan have used a nail set in a wooden handle (fig. 69, *a*, *b*). Awls were employed for piercing skins to make clothes, housetops, and bags; to pierce bark in the manufacture of canoes, bailers, and buckets; and also for the weaving of baskets.

Like the Ona, the Yahgan had no drill, and so their material culture was limited by the fact that they were unable to make holes in such a relatively soft substance as wood.

5. Hammerstones.—Usually present on Yahgan camp-sites are a number of stones which show marks of abrasion (fig. 70). The

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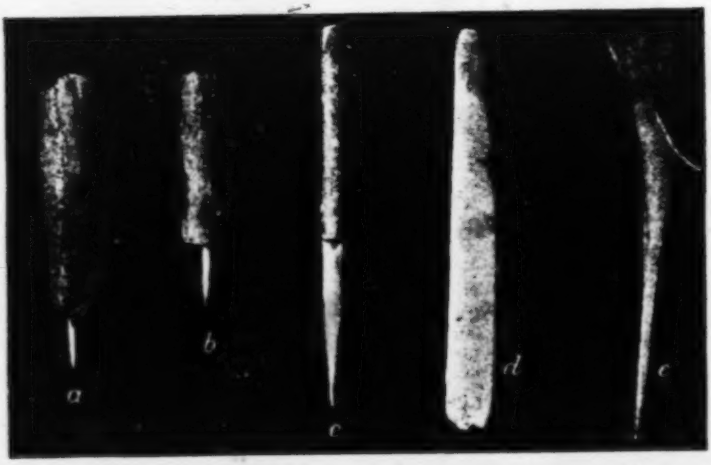

FIG. 69.—Yahgan awls and spatula. Length, 3¼ to 5½ in. (14/2376, 2376, 2378, 2333, 2334)

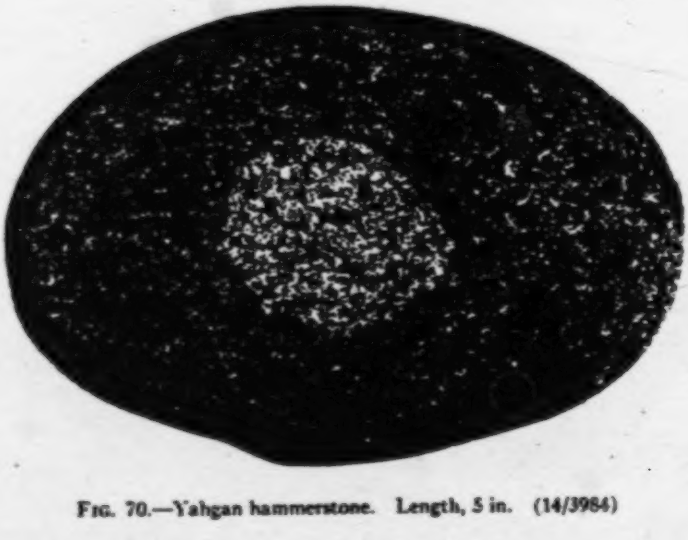

FIG. 70.—Yahgan hammerstone. Length, 5 in. (14/3984)

principal purpose for which such stones were used was opening shellfish. These stones never were hafted. 442

6. Sharpening Stones.—For sharpening knife and scraper blades the Yahgan employed a smooth stone (*chípi*) such as is shown in fig. 66, *b*. They can frequently be picked up on old camp-sites. The rounded hammerstones may also have been employed for sharpening.

7. Pumice.—For polishing, in place of our sandpaper or the *Ona fox-skin and grit*, the Yahgan used pumice (*hióɬ*). This material (fig. 71) is found on Picton island and on the coast of Tierra del Fuego to the north. It frequently floats down Beagle channel and may be picked up on the beach.

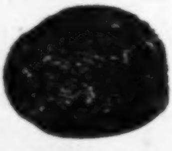

Fig. 71.—Yahgan pumice polisher. Length, 2⅜ in. (14/2224)

Boats and Boating

BARK CANOE

In the old days the Yahgan used a curved bark canoe which in outline is well described by Goicueta's phrase, "like a moon of four days, with raised tips." The last one ever afloat is shown in fig. 72. 501

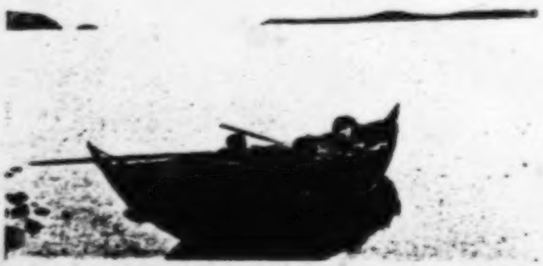

Fig. 72.—The last Yahgan bark canoe ever used. (Courtesy of Rev. John Williams.)

The bark employed (*atirskun*) was taken from the evergreen beech (*Nothofagus betuloides*), known to the Yahgan as *súschi*. It had to be stripped from the tree in the spring (October or November) when the sap was rising. For this purpose a tool made from the jaw-bone of a whale (*sánakaɬ*) was employed (fig. 67), and the 396

396 men ascended the tree by means of a thong of seal-skin (*wurrsh*). An industrious and forehanded man often removed two pieces of bark at the right season of the year in case his canoe might be wrecked. The extra piece was placed under water in a running stream to keep it flexible and was held there by means of stones. The piece intended for immediate use was scraped with a shell scraper (*tuᵘwĕ'na*) until the fat inner bark (*ushkaq*) had been removed. The bark was then cut to pattern, three cigar-shape pieces usually serving for the skin of the canoe.

The bark was next tightly sewn together with pieces of whalebone, or, if none were obtainable, with saplings warmed before the fire and shredded when very hot. Split saplings were then set close together for ribs (*ushkúlakin*), and the ends of these were held in place by tapering gunwales (*wurri*) lashed to the bark sides (fig. 73).

[501]

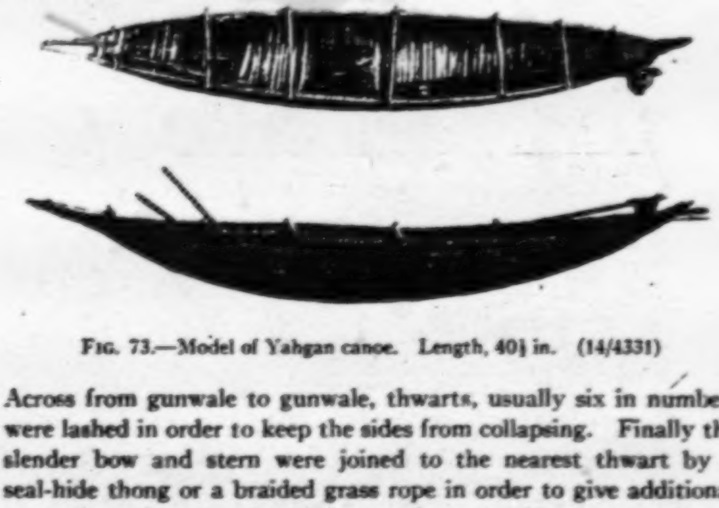

FIG. 73.—Model of Yahgan canoe. Length, 40½ in. (14/4331)

Across from gunwale to gunwale, thwarts, usually six in number, were lashed in order to keep the sides from collapsing. Finally the slender bow and stern were joined to the nearest thwart by a seal-hide thong or a braided grass rope in order to give additional strength to the extremity of the vessel.

To complete the canoe a fireplace (*af*) was installed amidships, for even in these days of matches and European clothes no Yahgan goes to sea without his fire. The fireplace consisted of a heavy piece of sod with much earth attached. Over this was a layer of pebbles, and the whole was soon covered with ash. In the bow a rest for harpoons was installed.

When fully equipped, the Yahgan canoe carried the following 501
articles:

- two or more paddles
- three kinds of baskets
- two fire-tongs
- four spears (fish, seal, crab, and limpet)
- dip-net
- club
- grass mooring rope or thong
- bark bucket
- fish-line.

Such was the bark canoe in which these Indians often ventured far from shore and even attacked whales. Its great virtue was that it could be made with few tools; indeed in an emergency it could be created with no more than fire and a knife. Furthermore, its high pointed ends made it seaworthy. On the other hand, the seams often leaked and the beech-bark is brittle—much more so than the birch-bark of the North American canoes. The canoes of bark found nearest to Tierra del Fuego are those of Brazil. Their construction is so different, however, that there seems no possibility of relationship between the two types.

DUGOUT CANOE

The first dugout canoe used by the Yahgan was made near 501
Ushuaia about 1880 by an Indian known as "John Furness." 176
This innovation
apparently was 177
an independent invention, instigated through the introduction of metal tools during the previous decade. At any rate the idea rapidly became popular, for the advantage of the stronger construction over the bark canoe was patent, and indeed the Alacaluf soon seized upon this type and abandoned their plank canoes.

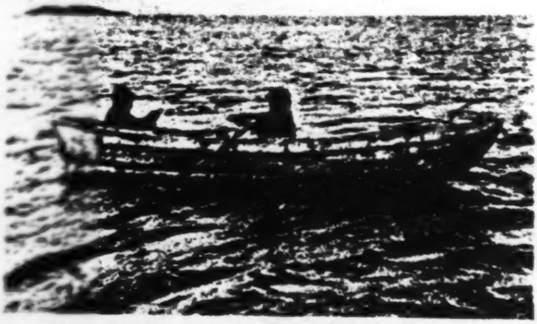

FIG. 73A.—Yahgan dugout canoe. (Courtesy of J. L. Weld, Esq.)

501 In outline the dugout canoes resembled their bark prototypes, modified by the material of which they were wrought. Thus, through ineptitude or a fault in the wood, one end sometimes was not pointed but was cut off square. Into the opening a tail-board was then fitted. This usually leaked. The sides of the canoe often were raised by nailing on boards.

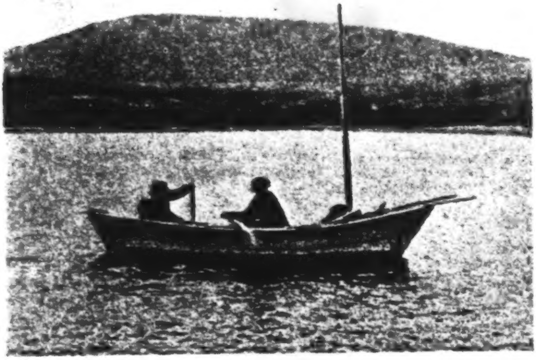

FIG. 74.—Modern Yahgan boat. (Courtesy of J. L. Weld, Esq.)

501 177 With the coming of Europeans the Yahgan adopted the use of oars and sails. The latter were raised on temporary masts and could be employed only when running before the wind.

501 178 The Yahgan bark canoe has gone entirely out of use today, and the writer was unable to discover an Indian competent to make one properly, although models can yet be obtained. The dugout canoe is still in use, but it is many years since a new one has been launched. The last double-ended dugout afloat (fig. 73A) was purchased and is now in the Museum. It is 16 feet 6 inches long, 3 feet wide, and 2 feet 7 inches deep. When purchased it had been in the water many years and was unbelievably heavy. Also it was the most unstable vessel in which the writer has ever set foot.

DORY

501 177 354 Today the few surviving Yahgan use a flat-bottom dory with square stern and high-pointed bow (fig. 74). This boat is of European manufacture and carries no mark of native identity except a fireplace. Today the fireplace is no picturesque affair of sod, but usually is an upright five-gallon gasoline tin, half-filled with stones, and with a hole cut in the side to facilitate the draft.

PADDLES

501 The old-fashioned paddle (*ápi*) had a long pointed blade and a short rounded handle (fig. 75). The blade was diamond-shape in section, so there was a tent-like ridge centrally down each side. Today most of the blades have rounded tips, a shape which the Yahgan may well have adopted from the Alacaluf.

FIG. 75.—Yahgan paddle. (After Hyades and Deniker.)

The women, who were the paddlers, often joined their men folk in fighting, using their paddles with deadly effect.

MOORING ROPES

[283] Canoes were moored either with a seal-skin thong (*wurrsh*) as shown in fig. 76, or more commonly with a braided grass rope (*shukamf*) such as is seen in fig. 77. The process of braiding the rope is illustrated in fig. 56.

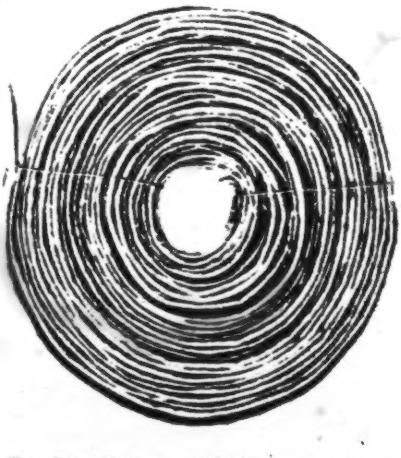

FIG. 76.—Yahgan seal-hide thong. Diameter of coil, 8 in. (14/2347)

CANOE BAILER

As all the Yahgan canoes leaked more or less, some kind of a bailer was imperative to keep them afloat. For this purpose a bark bucket like the water-bucket, but not so tall, normally was used (fig. 78). The writer has seen small seal-skin buckets said to have been used for this purpose.

CARE AND MANAGEMENT OF THE CANOE

502 The canoe was paddled by the women, who sat in the stern, while the men crouched in the bow to cast the spears. When paddling, owing to the short handle, one hand was under water.

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[147]
[283]

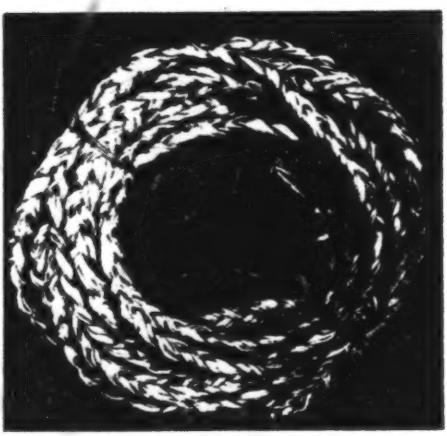

Fig. 77.—Yahgan grass rope. Diameter of coil, 5¼ in. (14/2349)

As a result of the exercise, the women were very strongly developed above the waist, but poorly developed in the legs.

When it was desired to make a landing the canoe was paddled in to the beach, bow-on, and the man of the family and the children stepped ashore. The wife then paddled the canoe out to a piece of kelp, moored it, and swam ashore. As a result all the women were able to swim, while few of the men could do so. [481]

504 The canoe was kept in the water habitually, because hauling it up on the beach was difficult owing to the fragility of the bark. When it was necessary to make repairs, the beach was carpeted with wet kelp to make a soft and slippery surface over which the canoe could be dragged with ease. The dugout canoes, however, were a different proposition, so for them runways were made by removing the stones (pl. xi). Stakes were driven at the head of the runways to which the canoes were tied. Campsites used habitually since the invention of the dugout may be distinguished by the presence of such runways. [415]

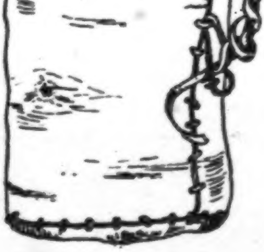

Fig. 78.—Yahgan bark bailer. (After Hyades and Deniker.)

Weapons and Methods of Hunting

SPEARS

411 Yahgan weapons were the spear, club, sling, and bow. In their fashion of living, spears were almost as import-

PORTO PIEDRA

PUERTO MEJILLONES

CANOE RUNWAYS, NAVARIN ISLAND

[p. 148-A]

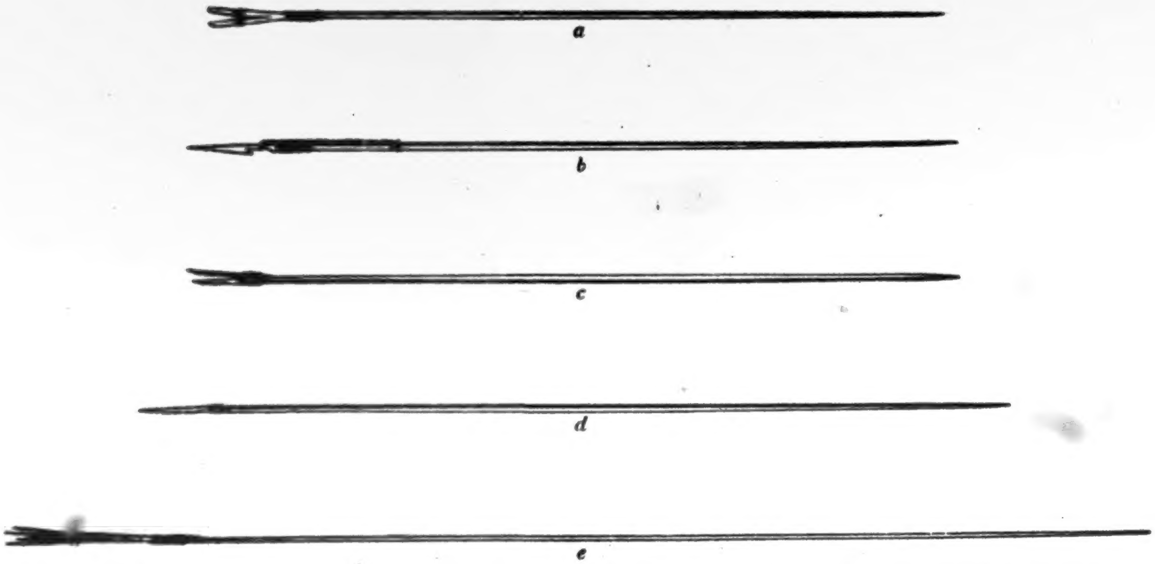

FIG. 79.—Yahgan spears. *a*, Limpet-spear (14/2272); *b*, Seal-harpoon (14/2271 c); *c*, *d*, Fish-spears (14/2273, 2271 f); *e*, Crab-spear (14/2272). Length, 8½ to 13 ft.

ant as the bow among the Ona. The use of this weapon was taught from childhood; practice in casting a headless spear, usually with an old basket as a target, was a frequently enacted sport. The basket was slung far ahead from the end of a spear; then all the young men present would cast at the target, walk up to recover their shafts, and toss the basket ahead again.

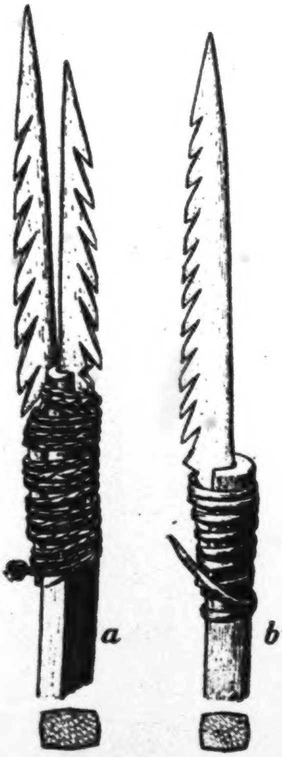

FIG. 80.—Yahgan fish-spears. Length of point of *b*, 10¾ in. (14/2273, 2271)

In fig. 79, drawn to scale, are shown five types of Yahgan spears, each designed for a special purpose, differing in point, shaft, and lashing. These details and certain regional variations we shall discuss at length.

1. BIRD- AND FISH-SPEAR. — This spear (*shushróya*) is an all-purpose spear, but it was specifically intended for capturing fish and birds. It was commonly used in warfare. It may be briefly described as a beechwood shaft tipped with a serrated whale-bone head lashed in place with seal-hide or braided sinew (fig. 79, *c*, *d*).

The shaft of this spear (called *shosh-aía*) is eight-sided, as can be seen in fig. 80, having four wide and four narrow surfaces. In casting, the flat of the shaft was placed on the palm of the hand. The head of the shaft is about three-quarters of an inch in diameter; the central diameter is nearly twice as much; at the butt it tapers to a point. Red or sometimes black paint covers the completed shaft. On one side of the head-end of the shaft a slot is cut, into which the tang of the spearhead is inserted and there lashed with a seal-hide thong. This is shown in fig. 80, *b*.

The head of the fish-spear is cut from the lower jaw-bone of a whale. In the old days whales were plentiful in Beagle channel and the waters to the south, but since the establishment of whaling

3: Lothrop E-5 (1924-1925) 1928

SH6 Yahgan SH6

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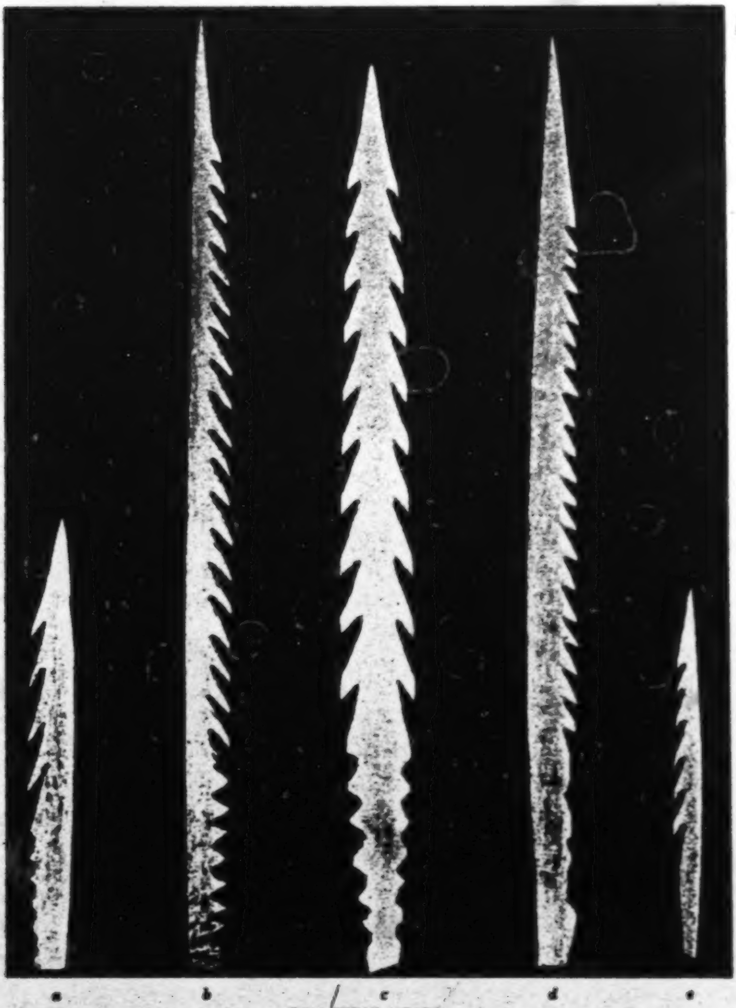

FISH-SPEAR HEADS

d (14/2259), ALACALUF; OTHERS (14/2329, 10/9638, 14/2330, 2329), YAHGAN.
LENGTH, 6 TO 16 IN.

[p. 150-A]

411

stations on South Georgia,[1] some years ago, they have become exceedingly rare. During the writer's visit to Beagle channel the supply of whalebone became completely exhausted, and it was said that four years had elapsed since a whale had come ashore.

Details of the spearhead hafting appear in fig. 80. The usual assemblage is that shown in *b* where a single point has been set in a deep notch and secured there by heavy spiral lashings. Sometimes, when the presence of certain kinds of fish made it desirable, a second point was set against the side of the shaft opposite the notch and there secured by lashings of the usual kind.

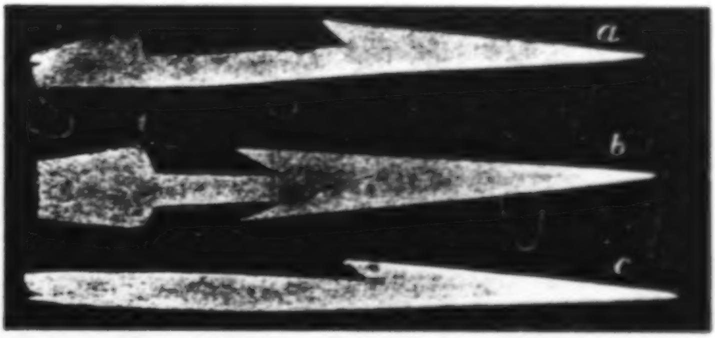

FIG. 81.—Yahgan spearheads. *a*, *b*, Seal spearheads (14/2327, 2328); *c*, Guanaco spearpoint (14/2321). Length, 11¾ to 12 in.

In size fish-spear heads range from six to eighteen inches, with anywhere up to twenty barbs. Eastern and central Yahgan points (pl. XII, *a–c*) have barbs along one side only. In the west this type, and also points with barbs along both sides, were used (pl. XII, *c*). Among the Alacaluf, I was informed, both single and double rows of barbs were employed. Pl. XII, *d*, shows a point made by an Alacaluf living with a Yahgan wife on Navarin island; it differs from Yahgan workmanship in the superior finish.

The tools employed in manufacturing the spearpoint were: (1) a stone hammer to secure a bone fragment of proper size, (2) a shell scraper or knife to shape the blade, and (3) a piece of pumice to polish it.

Yahgan fish-spear heads are strikingly like bone spearpoints

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[1] A recent account of this industry will be found in Morley and Hodgson's Whaling North and South, New York, 1926.

3: Lothrop E-5 (1924-1925) 1928

SH6 Yahgan SH6

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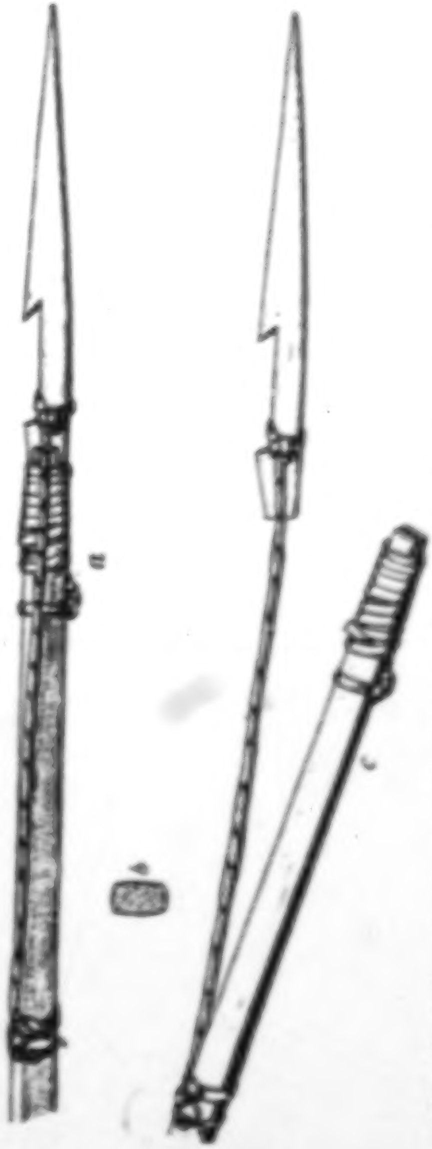

Fig. 82.—Yahgan harpoon. a, Shouldered for casting; b, Section of shaft; c, Position when dragging through water. Length of head, 10 in. (14/2271)

discovered in late Paleolithic deposits in Europe, yet between the Yahgan and the Magdalenian peoples of Europe roll great oceans of time and space.

2. Harpoons.—In the pursuit of seal, porpoise, and whale, the Yahgan employed a harpoon with a heavy shaft and a detachable head joined to the shaft by a thong (fig. 79, b).

The shaft differs from the fish-spear shaft in material and in weight: it is heavier than the fish-spear and consequently will deliver a harder blow; it is usually made not of beech but of cypress wood. Cypress grows only along the western channels of Tierra del Fuego, but in the old days the wood passed thence in trade to Beagle channel and the southern islands.

There are regional differences in the kind of point attached to the cypress shaft: in the east a single-barbed head (*awaía*) was used (fig. 81, *a*); in the west a double-barbed form (fig. 81, *b*) was employed. In both regions, however, the head had a flat-base tang with an expanded foot. 411

In assembling the weapon, the tang of the spearhead was inserted in a slot which ran completely through the head of the shaft, where it was loosely lashed by an encircling seal-hide thong (*tuwauwára*). It was held in place by a second thong (*tamutú*) tied to the tang and attached to the shaft two or three feet from the head. As illustrated in fig. 82, *a*, this thong was twisted until its length was lessened and it acted as a spring to hold the butt of the tang firmly against the bottom of the slot in the spearhead. The tension of this thong was a matter of constant adjustment, for it varied according to the wetness or dryness of the thong and even with the state of the weather.

[45]

When the seal-spear had been buried in the flesh of a porpoise, whale, or seal, the point promptly pulled out of the socket and the shaft then acted as a drag, as shown in fig. 82, *c*. But owing to the fact that the thong from the shaft to the head was tied near one end of the shaft, it dragged at an acute angle, so that sufficient pressure to break the thong or the shaft was not produced. The Yahgan apparently did not employ inflated skins or bladders for this purpose.

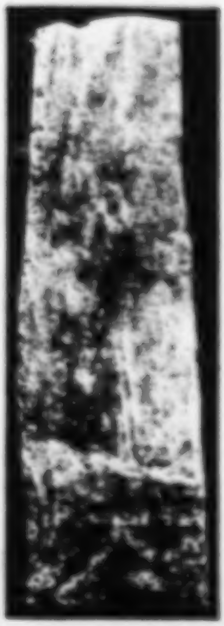

FIG. 83.—Yahgan spearpoint case. Height, 14 in. (14/2370)

3. GUANACO-SPEAR.—In the eastern part of Beagle channel and on Lennox and New islands the Yahgan hunted the guanaco with a special kind of spearpoint (*uwauf*), shown in fig. 81, *c*. It resembles the seal-spear in having a single barb, but lacks the projection seen on the seal-spear's tang. It was lashed on the light hexagonal shaft of a fish-spear. This kind of weapon apparently was in use only among the eastern Yahgan, for it was unknown to Messrs. William Bridges and Fred. Lawrence. The example illustrated was obtained from a Lennox islander. To spear guanaco the animal was chased into a swamp or else the 224

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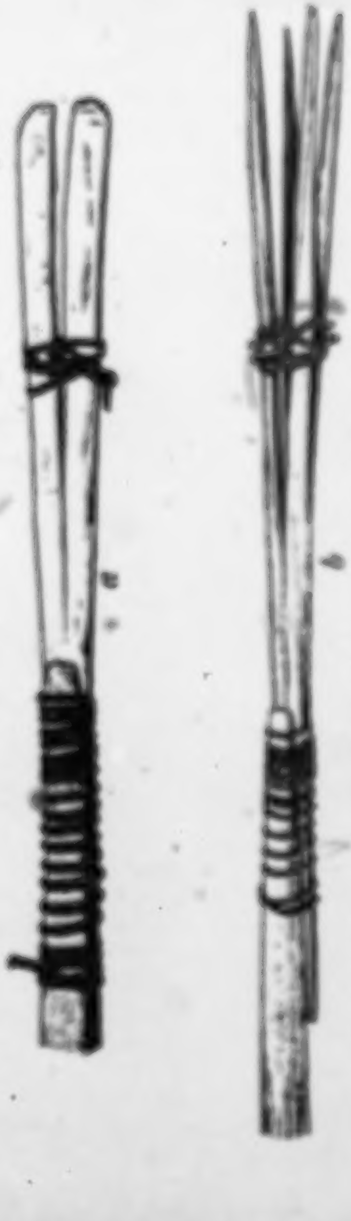

FIG. 80.—Yahgan [illegible]-spear (a) and crab-spear (b). Length of heads, 14½ and 19½ in. (10/2271, 2273)

hunter climbed a tree over a guanaco runway in the woods and waited there until an animal passed beneath him.

The three spear types described all had bone points, specialized in type but of approximately the same length. To carry the extra points that might be needed were the one in use to become lost, the Yahgan employed a small case made of seal-hide with the hair side inward. Old-time containers were simply a rectangle of skin folded double and sewn up the side and bottom (fig. 83). In recent years the Yahgan have followed the pattern of the Ona quiver (fig. 33) and have inserted a small oval piece of hide at the bottom of the case.

4. CRAB AND SEA-URCHIN SPEAR.—As shown in fig. 79, e, this spear ([illegible]) was considerably longer than the other Yahgan spears, for it was designed to secure crabs and sea-urchins under water.

The shaft was not octagonal like the other spears considered, but was round. It was covered with minute flutes like the Ona bow, but they were not so carefully worked.

The head of the crab-spear ([illegible]) was a piece of yellow barberry wood split at one

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan E36

end to form four prongs which were sharpened and hardened in the fire (fig. 84, *b*). These prongs were wedged apart with small wooden toggles held in place by a lashing of either braided grass or whalebone. The head was lashed to the shaft with a seal-hide thong. 411

3. LIMPET-SPEAR.—The limpet-spear ([illegible]) had either the fish or the crab-spearhead. It is seen with the former in fig. 79, *a*. The head (fig. 84, *a*) had but two prongs with flat, chisel-like blades. They were forced slightly apart by a small toggle.

BOW AND ARROW

In the old days, according to all accounts, the Yahgan habitually used the bow and arrow, but during the last half of the nineteenth century this weapon rapidly fell into disuse, until by the end of the century the bow had become a toy for children. [illegible]

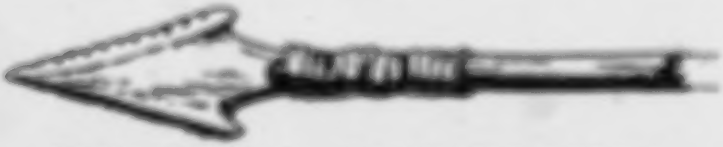

FIG. 85.—Yahgan bone arrowpoint. (After Hyades and Deniker.)

According to Fitzroy (1839, pp. 184, 187) the Yahgan everywhere arrowed birds and, in the east, guanacos. Their bows he described as three or four feet long and "quite plain." The arrows were two feet in length, well polished, and with the points so loosely attached that they remained in the flesh when the shaft was withdrawn (fig. 85).

An example of Yahgan bow which the Rev. John Williams kindly allowed the writer to examine had been given to his children several years ago as a toy. In general type it resembled the Ona bow, like which it was fluted, a characteristic due, I suspect, to contact with the Ona at Harberton. However, it was much shorter than the Ona bow, and much more curved, especially at the ends. This latter feature may have been accidental, for guanaco-sinew has a tendency to shrink for many years, and the writer has noted in museums Ona bows unduly curved owing to the increasing tension of the cord.

The arrows were short, clumsy, and untapered—very crude

3: Lothrop E-5 (1924-1925) 1928

[illegible] Yahgan [illegible]

[illegible] bone, cut to the Ona pattern with two barbs; but it had a long tang and was loosely attached to the shaft with heavy lashings like the Yahgan spears. Notches in the blade of the specimen illustrated (fig. 83) suggest the lithomorphic prototype seen in fig. 105, b.

In the Peabody Museum at Salem are two old Yahgan bows, one the gift of Capt. B. Morrell, Jr., who obtained it in 1823, the other collected by Lieutenant Wilkes, probably at Orange harbor or Wollaston island. These bows, illustrated in pl. xxx through the kindness of Mr. L. W. Jenkins, are respectively 3 ft. 9½ in. and 4 ft. 1 in. from tip to tip. Though the general outline and cross-section recall the Ona bow, the fluting typical of the handiwork of that tribe is absent. Both specimens appear to be made of beechwood, but this has become dark through age, much handling, and the application of grease. Bowstrings are of guanaco-sinew; they are attached in Ona fashion with a slip-noose at the bottom (to the right in pl. xxx) and with several turns secured by a half-hitch at the top.

CLUBS

Yahgan clubs ([illegible]) are short stout sticks, painted red when new (fig. 85a). These weapons were intended for killing seal on

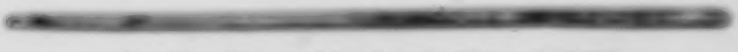

Fig. 85a.—Yahgan club. Length, 47½ in. ([illegible])

shore, or for killing birds at night with the aid of a torch of beech-bark ([illegible]). Also they were commonly used in fighting.

SLINGS

Slings ([illegible]) were an extremely effective weapon among the Yahgan, for some are said to have been so dextrous in their use that they often brought down flying birds. The usual sling (fig. 86) has a pouch of guanaco- or seal-hide suspended on braided whale-gut lines. The ends terminate in knots enlarged with a little guanaco wool. In discharging a stone, one knot is placed between the fourth and the little finger with the cord running across the palm of the hand; the other knot is held between the thumb and forefinger as the sling is whirled around the head.

The *Alacaluf*, as well as the Yahgan, were skilled users of slings, but of the Ona only those in the south had slings. At first glance

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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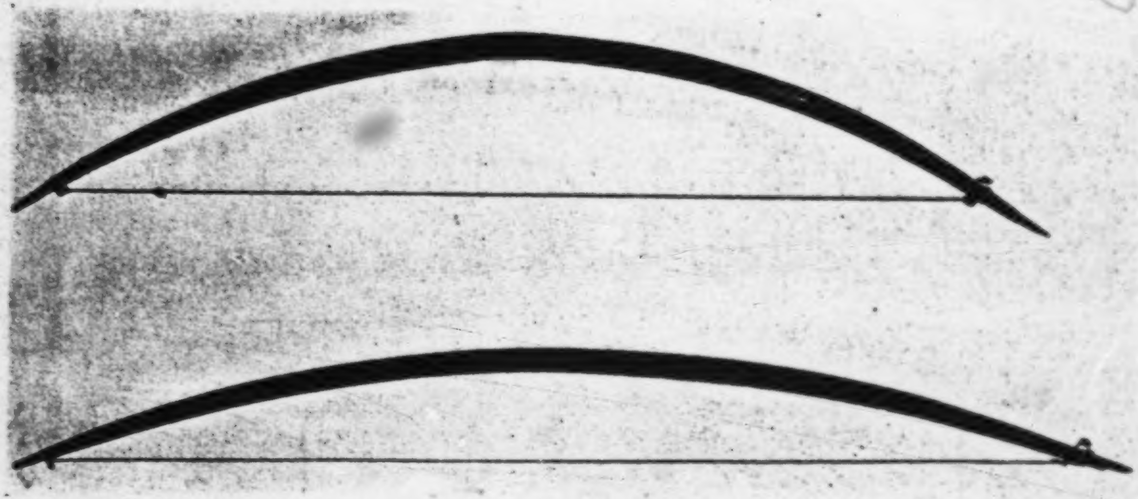

ANCIENT YAHGAN BOWS

LENGTH, 3 FT. 9½ IN. AND 4 FT. 1 IN. (COURTESY OF THE PEABODY MUSEUM, SALEM, MASS. (CAT. NOS. [illegible]))

[p. 156-A]

411 177 it would seem clear that the Ona had acquired knowledge of this weapon from the Yahgan. However, the Ona word for sling (*shinkai*) is not taken from the Yahgan, while slings are mentioned in a supposedly ancient Ona legend. Possibly then the Ona might not have borrowed the sling from their Yahgan neighbors, but in all probability they did,

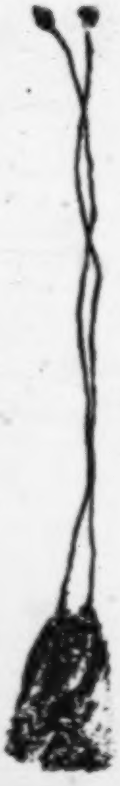

FIG. 86.—Yahgan sling. Length, 27 in. (14/2351)

BIRD-SNARES

411 Three different forms of snare were applied to the capture of birds by the Yahgan. In all of these, active prehensile function was performed by a noose of whalebone scraped thin to make it flexible. The simplest procedure was to set such a noose over a bird's nest during its absence. Also a series of nooses might be set on a cord, staked down in an open spot, and covered with suitable bait (fig. 36A). Finally, a whalebone noose was set on the end of a pole (*aárum*), as illustrated in fig. 87. With this implement it was possible to snare roosting birds during the night.

BIRD-CATCHING BY HAND

223 In addition to killing birds with arrows, slings, club and torch, and snares, the Yahgan sometimes took birds by a method which, if successful, often resulted in prodigally wasteful and unnecessary slaughter. At night a man would paddle silently to a rock where birds, preferably shags, as they are heavy sleepers, were roosting. He would steal silently ashore, and then seize the nearest bird with one hand around its wings and with the other hand pinch its windpipe so that it could neither flap its wings nor make an outcry. Then he bit off the head, placed the corpse on the ground, and went for the next bird. Thus with luck great numbers might be taken. But the steamboat duck (*Tachyeres cinereus*), a light sleeper, could seldom be captured by this method, and, if any were roosting on the rock selected, they usually gave the alarm. [231] Fitzroy (1839, p. 184) says that the Yahgan dogs were trained to catch birds by stealing upon them as they roosted during the night.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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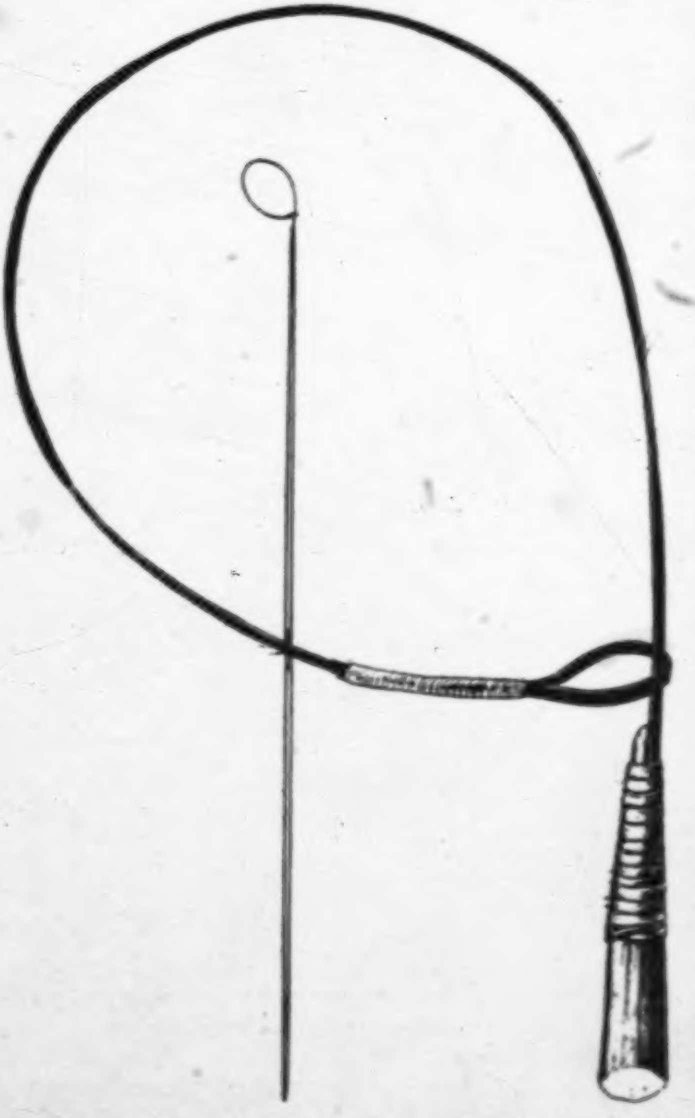

FIG. 87.—Yahgan bird-snare. Diameter of loop, 6½ in. (14/2276)

On Gable island and other places where birds nested the Yahgan 223 captured the young and tamed them to frequent their wigwams [231] until they were large enough to be eaten. The writer has seen young upland geese and gulls thus tamed. Also, in the summer, the Yahgan had special bird hunts near the breeding places, because at this time of year the birds, though nearly full-grown, have not learned to fly and may be captured by running them down.

FISH-LINE

The Yahgan fish-line, shown in fig. 88, consists of three elements: line (*tápim*), sinker (*társhir*), and bait noose (*tuhaléna*). The line is of braided whale-sinew and is ten to twelve feet long. The sinker is a small stone with notches knocked in opposite sides. The noose, like the bird nooses, is a narrow strip of whalebone scraped thin and flexible with a bit of shell. In an emergency a piece of kelp was used as a fish-line.

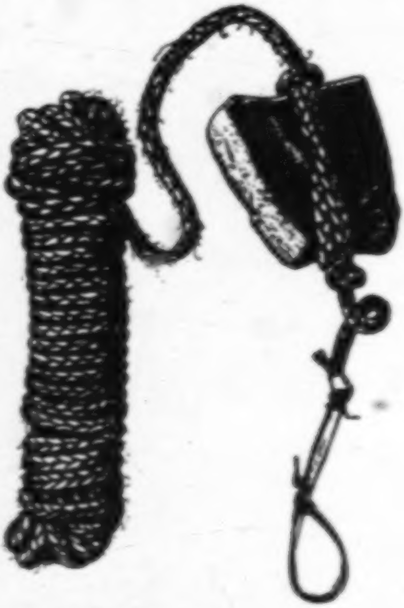

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FIG. 88.—Yahgan fish-line. Length of coiled line, 6 in. (14/2375)

In order to fish, the Yahgan women paddled in their canoes to a 225 shallow reef. There they anchored the canoe by inserting the handle of the paddle under a gunwale so that the blade projected outboard on the other side. A heavy piece of kelp was hauled across this, which not only served to prevent the canoe from drifting but also steadied it. Bait was then inserted in the noose and the line was lowered. When a fish had nibbled at and partly swallowed the bait it was pulled to the surface, seized by a quick dart of the hand, and killed by biting it in the head. Fish were cleaned as soon as they were caught by biting a hole in the belly through which the guts could be extracted with the finger.

FISH-NET

227 At certain seasons of the year Beagle channel is infested by small sardine-like fish which the Yahgan captured in dip-nets (*chiwanúsh*) woven of grass. A rather poorly-made example of these is shown in fig. 89. It will be noted that there is a light wooden frame enclosed by parallel stems of grass tied to the members of the frame. This was lashed to the end of a pole and with it the fish were dipped out. A model of this implement appears in the bow of the canoe in fig. 73.

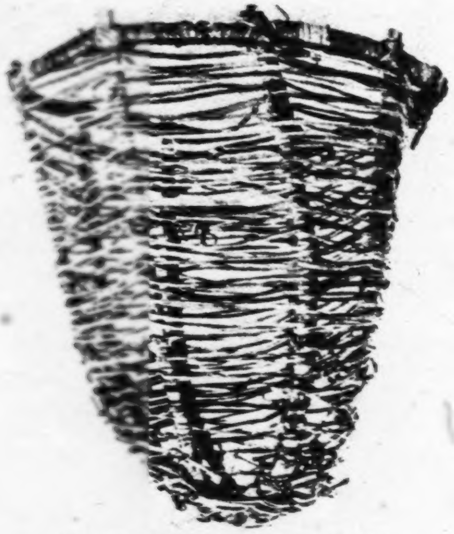

Fig. 89.—Yahgan dip-net. Height, 12 in. (14/2321)

FISH-WEIRS

According to Hyades (1891, p. 372) the Yahgan sometimes erected in suitable places fish-weirs consisting of a row of stakes. Of these I saw no trace in Tierra del Fuego.

Social Organization

594 484 Yahgan society was based on the family. There was no higher unit. However, related families usually paddled their canoes in couples, as the skin housetop was heavy for a single canoe, and they divided the common roof into two parts, of which each carried one. While the Yahgan were rovers, they usually stayed regularly in one district, where most of the people were their relatives.

622 554 All observers of the Yahgan comment on their lack of leadership. Medicine-men asserted a certain authority through the fear they inspired, but at times they were roughly handled, so their power was in no wise secure. As no communal enterprises were undertaken, there existed no need for chiefs.

KINSHIP

The Yahgan kinship terms, like the Ona, were compounded with 601 the possessive adjectives "my," "your," "his," or "her" (*háuu, sína, kichin*). These whole expressions may or may not be contracted. 192 Additional complications were introduced by the fact that different terms in some cases were used when speaking of a person nearby or far away, and again when two people or several people took part in the conversation.

The kinship terms listed below were obtained in part from 601 Mr. Fred. Lawrence and in part from Yahgan at Puerto Mejillones, and have been checked by Mr. William Bridges. It is difficult to gather these words, because much time has passed since many of them were used.[1] We have given many terms only in the first person when the second and third persons are regularly formed.

TABLE V.—YAHGAN RELATIONSHIP TERMS

	FATHER
my father	*háwahímun, háwimun*
your father	*sínahímun, sínimun*
his (her) father (when nearby)	*kichinhímun, kichimun*
his (her) father (when afar)	*kúnchiminhímun*
	MOTHER
my mother (when two speak)	*háwadábe*
my mother (when several speak)	*hídabéyan*
your mother	*sínadábe*
his (her) mother (when nearby)	*kichindábe*
his (her) mother (when afar)	*kidabéan*
	BROTHER
my elder brother	*háwawaíamun*
your elder brother (when nearby)	*sínawaíamun*
your elder brother (when afar)	*waimhaki*
his elder brother	*kichinwaíamun*
my middle (of 3) brother	*háwayínaládpawaíma*
your middle (of 3) brother	*sínayínaládpawaíma*
his middle (of 3) brother	*kichinyínaládpawaíma*
my younger brother	*háwaashuwá, háwaashuwalki*
your younger brother	*sínaashuwá, sínaashuwalki*
his younger brother	*kichinashuwá, kichinashuwalki*
my brother next to my eldest	*háwawaímakinchigaiakigaíaki*
my brother next to my youngest	*háwaashuwaiakinchigaíaki háwaáshpaki*
my brother next to my second	*háwayénalawaímakinchigaiakigaíaki*

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[1] Both Fitzroy and Darwin comment on the extraordinary rapidity with which the Yahgan and Alacaluf taken to England in the *Beagle* forgot how to speak their native tongues.

	SISTER
601 my sister	*háwamuhúskipan*
my elder sister	*háwawaikipan*
my younger sister	*háwaáshkipan*
my sister next to the oldest	*háwawaikipánchigalakigalaki*
my sister next to the youngest	*háwayénatapawaikipan*
	UNCLE
my father's elder brother	*háwahimúnchiwaiamun*
my father's younger brother	*háwahimúnchiashuwá*
my mother's elder brother	*háwadabeínchiwaiamun*
my mother's younger brother	*háwadabeinchiashuwá*
my paternal uncle	*háwaī'man*
	AUNT
my mother's elder sister	*háwadabínchiwaiakípan*
my mother's younger sister	*háwadabínchiáshkipan*
my maternal aunt	*háwayčhadábe*
my paternal aunt	*háwalemapúa*
	GRANDFATHER
my mother's father	*háwakolúna*
	WIFE
my wife	*háwakuloána*
	SON
my son	*háwamákun*
	DAUGHTER
my daughter	*háwamakípan*
	GRANDSON
my grandson	*háwamágulsa*
	COUSIN
my father's sister's son	*háwawáturu*
my father's sister's daughter	*háwakipawáturu*
my brothers and cousins (in general)	*háwamákusyérmalin*
my sisters and cousins (in general)	*háwamákuskípayérmalin*
	FAMILY
my family	*háwamamakuísawila*

MARRIAGE

601 582 The Yahgan addressed cousins of the first and second degree as "brother" or "sister," and were not allowed to marry within that range of consanguinity. A man spoke of his female relatives with whom marriage was forbidden as *háwamákuskípayérmalin;* a woman's prohibited relatives she named collectively *háwamákusyérmalin*. The restriction was absolute.

Among the Yahgan, marriage by capture seems to have been less 583
common than among the Ona. A woman given in marriage by
her father against her will soon abandoned the undesired husband. 586
In fact the Yahgan showed a tendency to change husbands and
wives not infrequently, which we may term progressive polygamy.
According to Rev. Thomas Bridges (1884, p. 206) a man might have 595
from one to four wives at a time, but the number was not fixed by
custom.

Infidelity resulted in no fixed form of punishment, but both the 684
offending man and woman were apt to be beaten. Shortly before
our arrival a Yahgan man had disappeared. It was rumored that
his wife, enraged at his amours, had beaten him with a paddle and
accidentally killed him.

CHILDREN

In the old days, to judge by the number of deserted orphans set 858
down in the mission records, the Yahgan did not greatly devote 847
themselves to the care of the children. Abortion seems to have
been a common practice, and infanticide we judge was not rare.
To reach the facts is somewhat difficult because early explorers
did not have sufficient knowledge to describe such practices, and
the mission contact soon put an end to them or drove them under [797]
cover.

Soon after birth had taken place the Yahgan mother bathed in 846
the sea and the new-born child was also immersed in order to
toughen it. This was a rather terrible ordeal for an infant, for the sea temperatures of winter and summer range from 40° to 50° Fahrenheit, while the air at best could be described as no warmer than temperate. We have no figures to show what mortality this custom entailed, yet cannot but believe that soon after birth all but the most vigorous and robust infants were thus ruthlessly eliminated.

After delivery, not only the mother but the father as well was expected to rest for a week or more. In this custom we see incipient couvade.

GAMES AND AMUSEMENTS

The Yahgan to pass the time indulged in various simple games 517
and in singing and dancing. Of necessity the young boys devoted 526
much care and time to practice with spear, bow and arrow, sling,
and stones; but while these exercises often assumed the form of 851

517 sport, the practical aspect of gaining a livelihood and a desire to imitate the grown men must have been the underlying motive.
526 Wrestling was not uncommon, and was an extremely rough sport,
851 so much so indeed that death sometimes ensued. Rev. Thomas Bridges (1884, p. 179) recognizes two types of wrestling: one between individuals known as *kahleka*, another between two groups known as *ungiana*.

524 Of the simpler amusements the children had several of the "follow-my-leader" type, they used a swing, they had a simple ball-game
851 like the Ona, and they painted themselves in the style of their elders and inserted short sticks in their lips, nostrils, and eyelids. Games of these kinds have been studied by Koppers (1924).

533 Of Yahgan songs Mr. Bridges (op. cit., p. 177) recognizes several varieties. The first group, called *loima*, are songs of blood revenge; another type, called *telania*, are songs of mourning; the *arua* songs are peculiar to the medicine-men; finally there are songs called *jacos* which are sung by everybody. This last class are usually mythological in subject matter. The same authority says that the
535 dances are called *uona*. People may dance alone, in couples, or in groups, and in a circle holding hands or in line.

526 The Yahgan had no foot-racing or water sports of any kind.

FEUDS

578 In general the Yahgan were not an amicable people, according to most accounts. When two groups camped together trouble
628 usually arose, and the weaker group moved away. This as well as the food quest accounts for their frequent changes of residence. Sometimes a fight might start between two individuals and then all their friends and relatives joined, probably in an endeavor to stop the encounter but sometimes to aid their man. Clubs, paddles, spears, slings, and stones were the weapons used. General mêlées, however, can not have been common, for Rev. Thomas Bridges sponsors the statement[1] that in the thirteen years between 1871 and 1884 only twenty-two murders had taken place. I have no figures for the Ona, but killings must have been much more frequent among them than among the Yahgan.

628 The causes of quarrels among the Yahgan were such as are found among all primitive tribes, namely, insult, theft, adultery, and the

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[1] In *South American Missionary Magazine*, London, 1884, p. 224.

death of a relative. All these called for vengeance, but the Yahgan 628 seem to have felt antipathy rather than hatred, so vengeance might be deferred for several years, during which time mutual friends might compose the quarrel.

Blood loyalty was recognized among the Yahgan, but apparently was not fiercely cherished as among the Ona. Rev. Thomas Bridges states that when a murder occurred the friends and relatives of the victim would take revenge, but the family of the murderer abandoned him and made no effort to defend him. This certainly is not customary among primitive people with a highly developed consciousness of consanguinity like the Yahgan, and perhaps Mr. Bridges' statement represents the result of missionary contact rather than the original state of affairs.

Organized warfare, during which any member of one group [721] would kill at sight any member of another group, as among the Ona, was unknown to the Yahgan, but blood revenge was sometimes executed on a relative of a murderer.

INITIATION

Thanks to the studies of Gusinde and Koppers full and complete 881 information about the Yahgan initiation rites is available, and the reader desirous of fuller information than is given here is referred to their various publications on this subject listed in the bibliography. Two ceremonies were in use among the Yahgan, known as *shieháus* and *kina*. The first of these, celebrated by both sexes, apparently is the ancient Yahgan rite, while the other corresponds closely to the Ona *klóktem* ceremony and represents culture borrowing from that tribe. Both may be described as a systematic educational course for the youth of the tribe—"going to school," the Yahgan called them.

For the *shieháus* ceremony a large domed hut (*mánaga*), elliptical 346 in outline, was erected near the encampment. The framework was of split saplings an inch or two in diameter, bent and set up to form arch-like ribs, and secured in place by a few horizontal beams (pl. XIV). These timbers were held together by lashings of gut. At either end of the hut were doors, one large to admit spectators, one small for the use of the candidates. On the roof they piled branches of the evergreen antarctic beech to afford shelter to those within, but the sides were left open to the weather. Rows of logs staked in place on the floor divided it into a central gangway

346 flanked by benches, built up by branches covered with skins. In the middle of the gangway burned a fire.

The house we have described was the type used by the central and western Yahgan. Our illustrations show the lodge erected in

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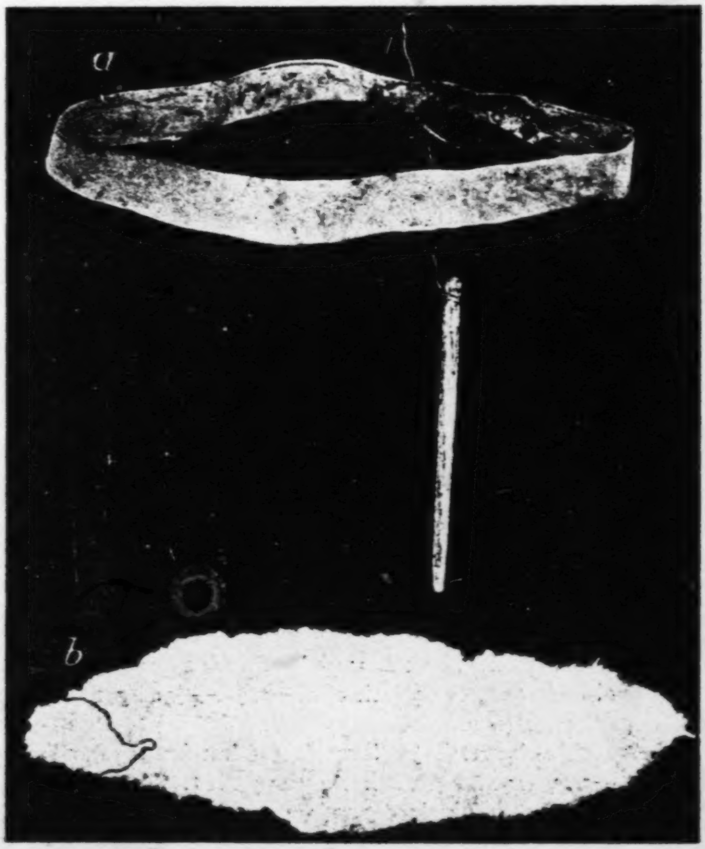
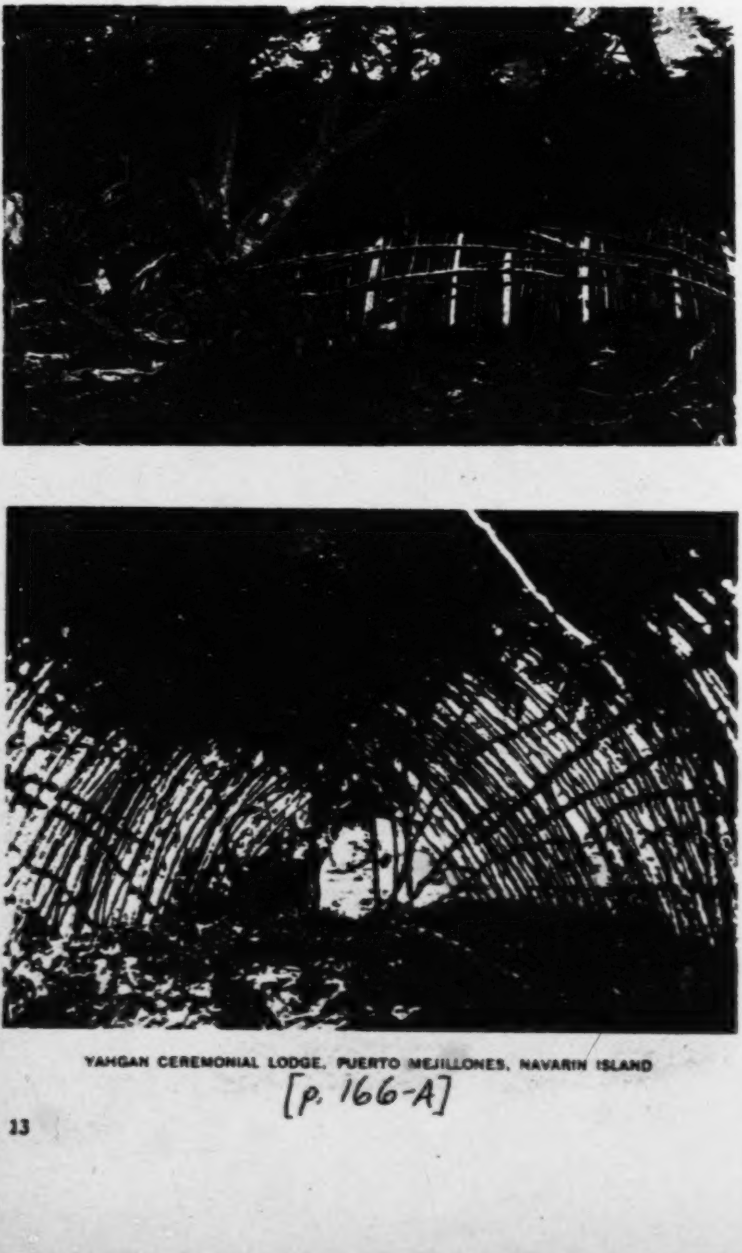


FIG. 90.—a, Eastern Yahgan initiate's headband and scratching-stick (14/2361); length of stick, 5 in. b, Kelp-goose down headband (14/2344); length, 19 in.

1922 at the instance of Gusinde and Koppers on Navarin island. The eastern Yahgan, I was informed, did not use a domed hut for this rite, but a pointed conical wigwam like that seen among the Ona (fig. 38).



YAHGAN CEREMONIAL LODGE, PUERTO MEJILLONES, NAVARIN ISLAND

[p. 166-A]

346 352 531 To beautify the initiation lodge, the flat inner surface of the split saplings constituting the framework was painted with red, white, and black paint. Broad boards, inserted at regular intervals in the frame, as may be seen in the upper view in pl. XIV, received similar decoration. The nature of the embellishment is shown in pl. IX, a series of designs copied from the lodge we have described. When a ceremony was in progress the hut was further adorned with small painted tablets hung from the roof, while an additional touch of color came from painted wands (fig. 91) which often were wedged in the frame of the house when not in use.

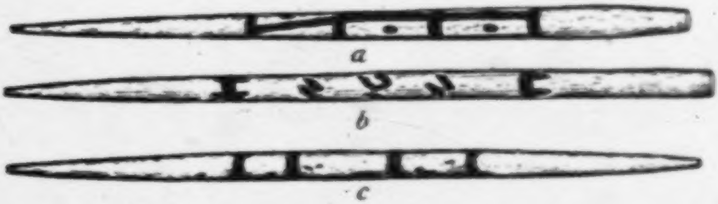


FIG. 91.—Yahgan painted ceremonial wands. Length of *b*, 24 in. (14/2227½)

343 Two hundred feet or so from the initiation lodge a second and smaller hut was erected to serve as a cook-house where meals for the candidates and officials were prepared.

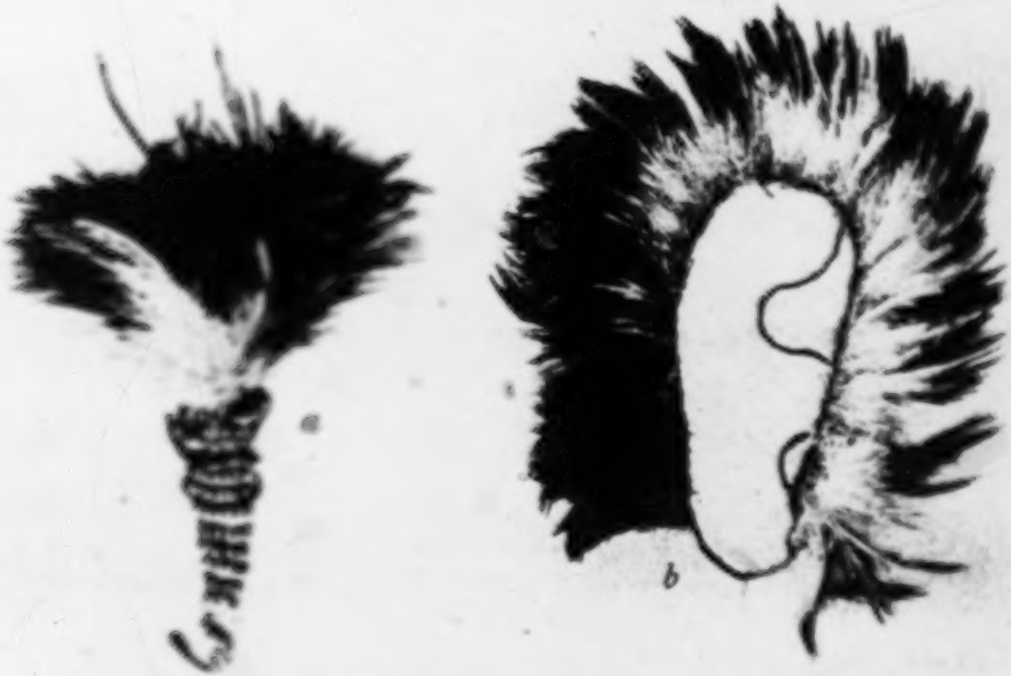
292 293 The paraphernalia used during the ceremony we illustrate in pl. XV and figs. 90 and 91. It consists of heron-plume headbands (*hapawára*) worn by the officials, kelp-goose down headbands (*pagal*) worn by the others present, a narrow hide headband painted white (*hehel*) worn by the initiate during part of the ceremony, a small stick also painted white (*w'matámia*) used for scratching, and variously painted wands (*tumoistáka*). The scratching-stick is assigned to all the Yahgan by Koppers (1925), but I was told that it was used only by the easterners. The wands were held in the hand during the singing and dancing, and were swung in time with the music. When not in use they were thrust upright in the ground or stuck in the frame of the lodge. If one fell on the ground it was considered an evil omen. I was told that these wands were not in use among the easterners. The men in charge of the ceremony kept at hand a seal-hide thong like that pictured in fig. 76, but adorned with closely spaced red dots; it was used to tie up any candidate who became unruly.

881 The oldest and most experienced of the men present assembled before the ceremony and agreed on the time and manner in which it was to be conducted. From their number they chose one who was both respected and well liked to be the master of ceremonies. Another they selected as the official instructor of the candidates, while others they designated "policemen." Their duties were to assemble the candidates in the lodge—by force if necessary—to see that they were submissive at all times, to sit on the roof during the ceremony and ward off any threat from without, and to communicate with the cook-house when necessary. Finally each candidate had three godparents, two of his own and one of the opposite sex. Their part was to see that the candidates fulfilled all the ritual properly and to help them as much as possible, for it was to the credit of the godparents if their adopted children did well. In addition to the candidates and the officials, most of the grown people came to celebrate the ceremony. Places were taken in family groups, while the initiates sat with their godparents. All sat with their legs crossed under them and with arms akimbo, thereby taking up as little room as possible so that a large number might receive the warmth of the central fire.

For the first three days of the initiation, candidates maintained a strict fast, for their allowance of food was only from three to five mussels a day. Their water supply also was limited and had to be consumed through a hollow bird-bone. At night they were forced to maintain their cross-legged position, with the exception of four to six hours when they were allowed to sleep. If they relaxed at any other time they were pushed back into position by the older people and perhaps beaten for their lapse.

During the day the initiates received instruction in the art of making a living. The men instructed the boys in the methods of hunting, how to make tools and weapons, how to build canoes and houses, etc. Similarly the women taught the girls how to gather mussels and fungi, how to make baskets, buckets, and necklaces, how to rear children, etc.

At nightfall all the candidates were taken to the beach and forced to bathe in the icy water of the ocean. After the first bath the boys received a sort of tattooing on their chests, consisting of three lines of scratches into which they rubbed red paint. This was not real tattooing, because the cuts were not deep enough to retain the color permanently.



YAHGAN HERON-PLUME HEADBANDS

HEIGHT OF b, 7 in. (14/2886, 2887)

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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[p. 168-A]

The greater part of the *chiexaus* ceremony was filled with singing and dancing. By means of song they sought both to communicate with and to keep at a distance the *Yetaite*, a great evil spirit, who, the candidates were told, might seriously injure the occupants of the initiation lodge. Dancing served to neutralize the evil of his presence. To frighten him, the walls of the hut were beaten with sticks. Candidates were told to follow directions exactly or the *Yetaite* would seize them. Sometimes the *Yetaite* actually appeared—a man fantastically painted. Finally the candidates were told who it was and were warned that the real *Yetaite* was much worse than what they had seen.

The master of ceremonies usually was the leader in the singing, though sometimes this duty was assigned to another old man. The dances, which usually came late at night, were named for certain animals. Both the melody and the movements suggested characteristic peculiarities of this animal.

The moral instruction of the candidates they divided between the godparents and the official teacher, at whose feet the initiates had to sit from time to time. They were taught to be altruistic in thought and conduct, and to exhibit the virtues of hospitality and generosity. Respect for the aged was inculcated, for all must grow old in time. The boys they taught to be peaceful and not to make enemies, to treat women with respect, to help the young and the blind. The girls they told to rise early in the morning to get their water and wood, to care faithfully for their husbands and children, not to fuss about trifles, nor to repeat gossip. Behind these instructions stood a certain amount of religious sanction, for the evil *Yetaite* threatened them, while the supreme *Watauinewa* observed their every action. This moral code set a standard for the tribe to which in practice they did not adhere too rigidly.

After some days of instruction the ceremony came to a close. At a given hour the candidates assembled behind a curtain at one end of the hut. One by one they were called forth with the master of ceremonies dancing beside them and were ceremonially surrendered to their godparents and therewith accepted as members of the tribe. The godfather gave his child three gifts: a finely woven *gaichim* basket adorned with feathers, a bird-bone like the one used to drink with, and a scratching-stick.

In the final hours of the last evening the women took charge under the leadership of an old woman. She and the other women

3: Lothrop K-5 (1924-1925) 1928
5266 Yahgan 5268

881

song, seated in the central part of the lodge. Finally a mock battle between the sexes was staged.

Such then was the chiehaus ceremony. On it the Yahgan believed their well-being depended, and without it no one could have any standing in the community. In fact each individual repeated the performance two or more times, but received preferential treatment after the first course.

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171

[535]
[780]

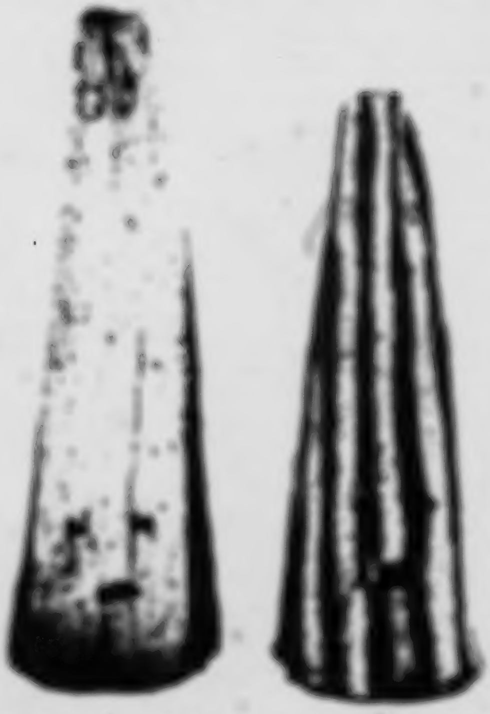

FIG. 92.—Yahgan dance masks. Height of a, 27 in. [illegible]

After having experienced the chiehaus, Yahgan men were allowed to enter the kina ceremony. This rite resembled the Ona Kloketen. Gusinde and Koppers believe that it originated among the Ona, pointing out that inequality of the sexes was foreign to Yahgan precepts and that it was not taken as seriously by the Yahgan as the Ona. Rev. Thomas Bridges speaks of the gleeful laughter among the Yahgan women when a mask fell off a supposed spirit, thus revealing his human character.

This ceremony fell into disuse among the Yahgan as early as the eighties of the last century, but it was revived in 1922 for the benefit of Gusinde and Koppers, to whose accounts of it the reader is referred. While differing in details, it was essentially like the Ona rite except that the treatment of the candidates neither lasted so long nor was so severe as among the Foot Indians.

In figs. 92 and 93 are illustrated some of the masks used by the Yahgan. The material is either bark (fig. 92) or seal-hide (fig. 93), cut to pattern and sewed together with whalebone and gut respectively. There is usually a small opening at the top for ventilation. As Yahgan paints were not waterproof, a single mask could be adorned to represent many characters by the simple expedient of washing and repainting it. 535

As to the characters represented by the Yahgan, in fig. 92, a, is the rainbow, distinguished by broad red, white, and black bands; b has alternate red and white stripes, and it represents a snail-like fish. In fig. 93, a, is a model of the [illegible] ghost mask, while b represents the sea-lion. The wearers of these masks painted their bodies and limbs with similar decorative patterns. 535 532

[illegible]

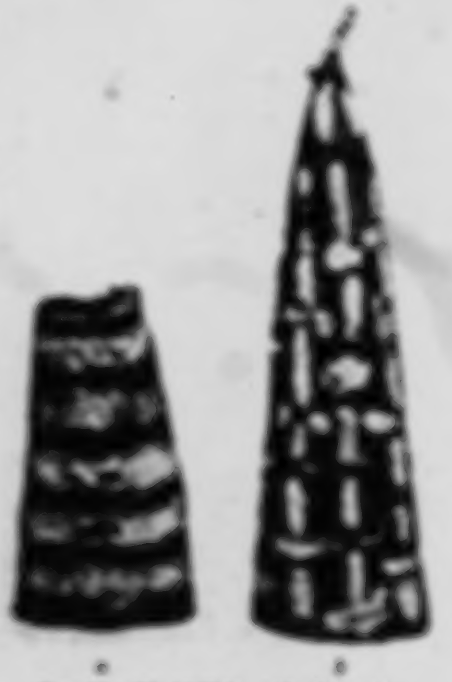

Fig. 92.—Model Yahgan dance masks. Height of b, 19 in. ([illegible])

Religion

Although it has been repeatedly stated on excellent authority that the Yahgan had no real religion, I think it definitely established that they had religious beliefs and practices. 771

The Yahgan world was peopled by innumerable unseen beings—ghosts ([illegible]) of departed shamans, spirits of the sea, the rocks, and the trees. These people, for the greater part, were malicious by nature, resentful of intrusion on their privacy, and, when seen by man, terrifying in aspect. Solitary travelers might suddenly find themselves facing a fierce spirit across the light of his camp-fire. 776

776 and might be seized and done to death. However, the shaman usually had power over demons of this type and could give protection.

Apart from and above these lesser spirits was the great Watauinewa, described by Koppers (1923). This supreme being, though not concerned with creation, was the master of all. He sent the great flood in days long past, he causes death, he controls the game and fish supply, he is perfect and almighty. To him prayers were offered in sickness, grief, and thanksgiving, for this was not an aloof god normally forgetful of the affairs of mankind. Rather he was a supreme dispenser of justice, and he always punished the wicked.

The Shaman

756 Among the Yahgan both medicine-men and medicine-women existed and played an important part in the community. Supernatural powers were attained by certain individuals thought to have command over a natural spirit and the ghosts of departed witch-doctors. Thus dowered they could either kill or cure the individual and could affect the well-being of the community by controlling the weather or the food supply.

755 Disease, as among many primitive folk, they accredited to causes no less concrete than wounds. Hence the shaman must work his cure by removing some foreign object lodged in the body of the patient through accident or malice. Usually the doctor, after much massage, manipulation, and incantation, would triumphantly produce a stone or some other object, which he claimed to have extracted from the sufferer. The cures actually wrought can be attributed to the often beneficial results of the massage and to the healing power of suggestion.

756 According to Koppers (1923), the shaman assumed his function as the result of a "call" coming to either a man or a woman. This inner vocation took the form of a dream in which friendly relations were established with natural spirits and with the ghosts of dead shamans. After several such dreams a personal guardian spirit would be established. To the men a sort of shaman's school was open, but women were barred from this because they had not passed the men's final initiation. During the period of this school dreams were encouraged by rigorous training, much practice was given in the necessary sleight-of-hand tricks, and the proper chants were memorized. The curious spectacle of a man walking on hot

156 coals witnessed by Rev. Thomas Bridges (1893, p. 238) may have been part of this training.

Graduation from the shaman school did not insure a successful
156 professional career, for only by repeated proofs of power could the
887 individual's reputation be established. It seems that there was much competition among the medicine-men, and several early observers note a tendency of almost all the older people to work cures, to prophesy, etc.

156 In fig. 94 is
415 illustrated the guanaco-hide bag in which the shaman carried his impedimenta. The contents were diadems of heron-plumes and of kelp-goose down, and white paint. To these doubtless should be added a number of small hard objects to be shown to the sick as the cause of their pain.

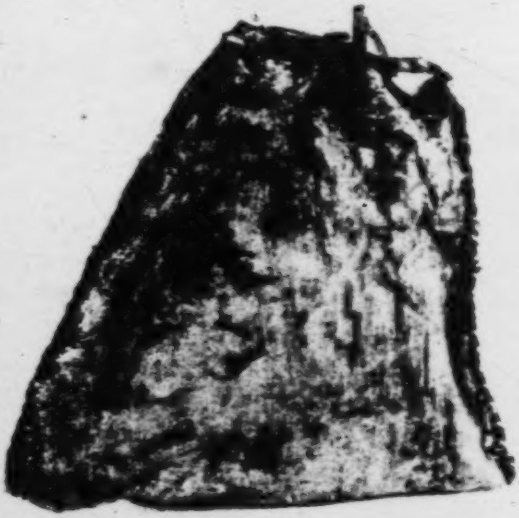

FIG. 94.—Yahgan shaman's bag. Diameter, 11 in. (14/2337)

DEATH

764 When death took place the corpse was wrapped in old seal-skins and buried outside of the house within twenty-four hours. If the ground were frozen, the corpse might be covered with stones and shrubs to keep off dogs and foxes, or it might be buried in a cave or on a small island. Hyades (1891, p. 379) says that when death occurred far from home the body was carried into the woods and cremated. This was done that the bones might not fall into the hands of enemies and be made into harpoon-points.

765 For mourning the family of the defunct covered themselves with

765 [535] black paint and indulged in formal ululation. They summoned their friends and relatives to the death-dance known as *yamalaske-moina*, which might be repeated at intervals for several months. For it the men and women donned the white kelp-goose headband; the men supplied themselves with clubs of unusual length (fig. 95),

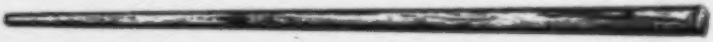

FIG. 95.—Yahgan ceremonial club. Length, 5 ft. (14/2261)

[761] and the women carried paddles. As with many primitive tribes, the Yahgan believed death due to some positive and active force, visible or invisible. Hence the mourning ceremony carried the threat of revenge and assumed the character of a sham battle.

775 It has been both asserted and denied that the Yahgan believed in the immortality of the soul. Testimony on this point secured in recent years from mission-reared Indians might not be considered conclusive, but mythological tales clearly indicate belief in survival. As among the Ona, only unusually powerful and bold spirits, such as those of shamans, were able to maintain contact with the visible world.

MYTHOLOGY

773 The Yahgan possessed the usual collection of myths found among primitive peoples, but these are exceedingly simple in character and lacking in humor or sublety. The most extensive study of the mythology of this tribe was conducted by Gusinde and Koppers, and has been published only in outline. Barclay, Thomas Bridges, Cojazzi, and Martial also have contributed mythological material of importance, while a few scattered tales occur in the works of other writers. It has seemed worth while to summarize these published sources because they often are difficult to obtain and have appeared in five different languages. We have followed the classification of Koppers (1924).

EXPLANATORY MYTHS

There are a large number of tales which explain the various phenomena of nature such as the slow approach of dawn, the shape of the rainbow, the spots on the moon, the bare tops of the mountains, etc. Such tales often form incidents in the more complex myth cycles we shall discuss.

ETHICAL MYTHS

In this class are various stories dealing with adultery and incest. The wrongdoer is invariably punished and usually dies in disgrace. These stories are told the young during the initiation ceremonies as part of their education. 173

GHOST STORIES

Ghosts (*kushpig*), especially of dead shamans, were greatly feared among the Yahgan, as they were thought at times to intervene maliciously in human affairs. Hence tales exist of close escapes or death at their hands. We should also mention tales of men who had gone mad from some cause. Living in savage solitude, they sometimes terrified the Yahgan by appearing before them or attacking with desperate fury. [175]

"ONCE-UPON-A-TIME" STORIES

There are many stories of varied character dealing with the escapades of unnamed individuals. Quite often these tales merge in classification with transformation myths. As an example we quote the following story recorded by Cojazzi (1914, p. 32):

"A young girl was playing on the beach, following the retreating waves. A seal saw her and swam in on a big wave which caught and spilled her. He swam off with her on his back to an island where they lived two years. The seal learned Yahgan. They had a son like a man in shape but covered with seal-hide. One day the woman said she would like to visit her family, and the seal agreed; so he loaded the mother and son on his back and swam to the beach, where he waited while the girl visited her parents, who failed to recognize her. But finally they received her with joy and commenced to prepare a feast. And the men, seeing a seal on the beach, ran down and killed it, and they cooked it for the feast and gave it to the mother and son to eat. Then the son said to his mother, 'Isn't seal meat good?' The mother had a horrid presentiment and ran to the beach where she had left her husband and encountered the traces of blood. Furiously she beat her child over the head, and he fell in the sea and became the fish called *sciuno*."

GIANT STORIES

To the Yahgan the giants (*hanush*) were large and fearsome creatures with hairy skin, flowing locks, and ferocious natures.

173 Their appearance could not be foretold, with the exception of a few who in ancient times set up as highwaymen on traveled thoroughfares. In general, however, they confined their attention to solitary travelers or to women and children who strayed from the encampment. Martial (p. 213) and Dabbene (p. 66) record the story of a giant shaped like a huge sea-lion, who lived in a cave on Gable island and killed and ate the crews of passing canoes. A young man named Oumoara, small in stature but dextrous with his weapons and courageous in conflict, decided to kill this giant. So he said good bye to his wives and set off alone in a canoe. As he drew near shore he put out the giant's eyes with two successive sling shots; then he poured all his arrows into the giant's body and finished him off with the harpoon.

Once, as the result of the amours of a woman and a block of stone, there was born a giant, who, like Achilles, was vulnerable only in the heel. He lived on the coast of Hoste island where he killed the men and carried off the women. One day he hurt himself in the heel by accident. Oumoara heard of this, and, knowing his weakness, decided to attack him. Thus the giant was slain.

CULTURE-BEARER MYTHS

Koppers (1924) outlines a complex story dealing with two brothers called Yoā'lox and their sister Yoā'loxtörnikipa. According to Yahgan tradition these three were culture-bearers who introduced the use of fire, the art of killing birds, hunting sea-lion, *getting fish-oil, making spears with barbs. They were said to* have come from the east by land. Taken in conjunction with the Ona legend of bearded white men, I think it is clear that in Tierra del Fuego we have an outlying trace of the Quetzalcoatl-Viracocha myth complex, most highly developed in Mexico, Colombia, and Peru. In the art of more developed cultures than the Fuegian, this hero is associated with the plumed serpent or dragon complex which is the most basic and wide-spread of compound symbolic patterns found among the American Indians, for it can be traced from southern Canada to northern Argentina.

The Yahgan version is that the older Yoā'lox was stupid and lazy, and he wished that the fire would never go out, that the spear would return of itself to the hand after the cast, that sea-water should be fish-oil, that man should not die. The younger brother, active and intelligent, said that the unguarded fire should go out, that the carefully cast spear hits the mark and need not return to the hand, that fish-oil tastes better if one works for it, that it is better to die as one lives again elsewhere. In this the sister, the cleverest of the three, sided with the younger brother.

On arrival in the Yahgan country, the various arts and industries were introduced. There followed a general giving of names, the beginning of sexual intercourse, rules governing menstruation, etc. The two brothers and their sister are now stars in the sky.

DEBACLE MYTHS

In this myth cycle belong the story of the origin of the initiation ceremonies, and a flood myth. According to Koppers, it is told as follows:

Long ago the women ruled the men, who then performed all the duties today allotted to the women. The weaker sex had gained their power by the *kina* ceremony. Painted fantastically and disguised by masks, they terrified into subjection their men folk, who believed they were looking at supernatural spirits controlled by their wives. At that time Hanuxa, the moon, was the leader of the women and chief oppressor of the men.

Lōm, the sun, was the ablest hunter and bravest of the men. One day, as he was returning from a successful hunt, he hid behind some bushes and listened to the talk of two girls who were bathing, and from them he learned the whole *kina* secret: there were no ghosts or spirits, only the women themselves. Then a great rage seized Lōm, and with other men whom he quickly aroused he rushed into the *kina* hut and killed all the grown women, so that only young and ignorant girls remained living. Since that day the *kina* ceremony has been celebrated by and for the benefit of the men, who thus keep the women in subjection. According to Martial (p. 213), this event transpired near Ushuaia at a time when the Ona were encamped there, so that the two tribes uprooted their social systems together.

Hanuxa, the leader of the women, escaped the general massacre, but she was badly beaten and immediately went to the sky where she became the moon, and today the result of her beating shows in the spots on her face. Discomfited and angry at what had transpired she planned revenge, and so she sent a great flood which covered all the earth except a few mountain-peaks where some people managed to survive.

773 Later Lōm took to the heavens and became the sun; his father, Taruwa Lōm, became a star (Venus?); his brother, Akainix, became the rainbow.

Several variants of the flood myth have been recorded in Yahganland. Koppers himself speaks of another version in which Laxuwakipa, the ibex, in rage once sent a great cold spell so that vast quantities of snow fell. Later this all melted and a destructive flood followed. Cojazzi (1914, p. 31) records that among the central and eastern Yahgan they say the moon once fell in the sea. Hence the waters rose above everything but the loftiest mountain-peaks, where a few men and women took refuge with the animals. When the moon climbed back into the sky, the survivors descended and feasted on a dead whale that they found. Another version given by Cojazzi (*loc. cit.*) is that at the time of the flood Gable island became loose at the bottom and floated like a great ship, on which many were saved. According to Rev. Thomas Bridges (1884, p. 13) it was not the moon but the sun who fell in the sea and caused the flood.

THE ALACALUF

000 Of the Alacaluf, the second tribe of Canoe Indians found on Fuegian shores, only two members were seen by the writer. We therefore have no contribution to make on the Alacaluf. In general Alacaluf material culture was almost identical with that of the western Yahgan. They were, however, slightly better workmen than the Yahgan, so that at times their manufactures can be distinguished from those of their neighbors by the superior finish. For a useful summary of Alacaluf literature the reader is referred to Dr. Cooper's Bibliography.

ARCHEOLOGY OF SOUTHERN TIERRA DEL FUEGO

CAMP-SITES

172 The shores of Beagle channel are dotted with the refuse of former Yahgan camp-sites. Composed of ash, bone, stone, and shell, and partly denuded of vegetation, these middens can be recognized from afar by their peculiar pearl-gray color, which differs from the green-gray rock and the brown-gray soil. They are found in sheltered places, where there is a beach for landing, kelp off-shore for mooring canoes, and where water and firewood are readily available.

Examination of the surfaces of the middens reveals on top a series of pits which represent house-sites (fig. 103). These pits are from ten to fifteen feet in diameter, anywhere up to six feet deep (two feet being an average figure), and are circular in outline. Within the pits are traces of inhabitation—hammers, grease stones, etc.—usually today half engulfed by grass. Sometimes house-sites can be determined by small circular patches of unusually luxuriant grass fertilized by refuse, where various utensils can be found. 172

Like the Ona, the Yahgan did not speak of the dead or camp on a spot where death was known to have occurred. So certain house-pits on any given site must at times have remained unoccupied during many decades until the memory of one who died there had passed. The other pits were occupied but intermittently by the ever-roving Yahgan. Rarely did they pass even a few weeks at any given spot. This factor makes difficult any attempt to estimate the age of these great shellheaps by calculating their cubic contents in relation to the probable number of inhabitants. 769 172

The seaward slopes of the middens are fronting the beach and stand so close to the waters that they are occasionally dashed with spray, and many are undercut by the waves for a foot or two at the base (pl. XVI). From this, slight submergence of the land since the heaps were commenced may be argued. As the shellheaps are really great terraces built out from rising ground toward the beach, the seaward slopes are steep. This steepness is increased by the undercutting of the waves, which often cause small landslides. Thus the vegetation is removed and large sections of refuse are exposed for examination as well as if trenches had been dug. At the same time the shells, bone, and ash brought down to the beach by erosion are carried away by the sea, but the heavier stone implements are left at the base of the exposed face where they may be readily gathered. 172

An interior feature frequently exposed by erosion is that the shells have in places solidified into a breccia, which forms a floor a foot or so in thickness. These spots occur sporadically and at no uniform depth, and it was impossible to determine the special conditions which had given rise to them.

It must be remembered that, as the Yahgan had no cooking-vessels, many of the shells in the refuse have been exposed to the action of fire and hence are calcined. From this it follows that they are very brittle and have been crushed by passing feet when

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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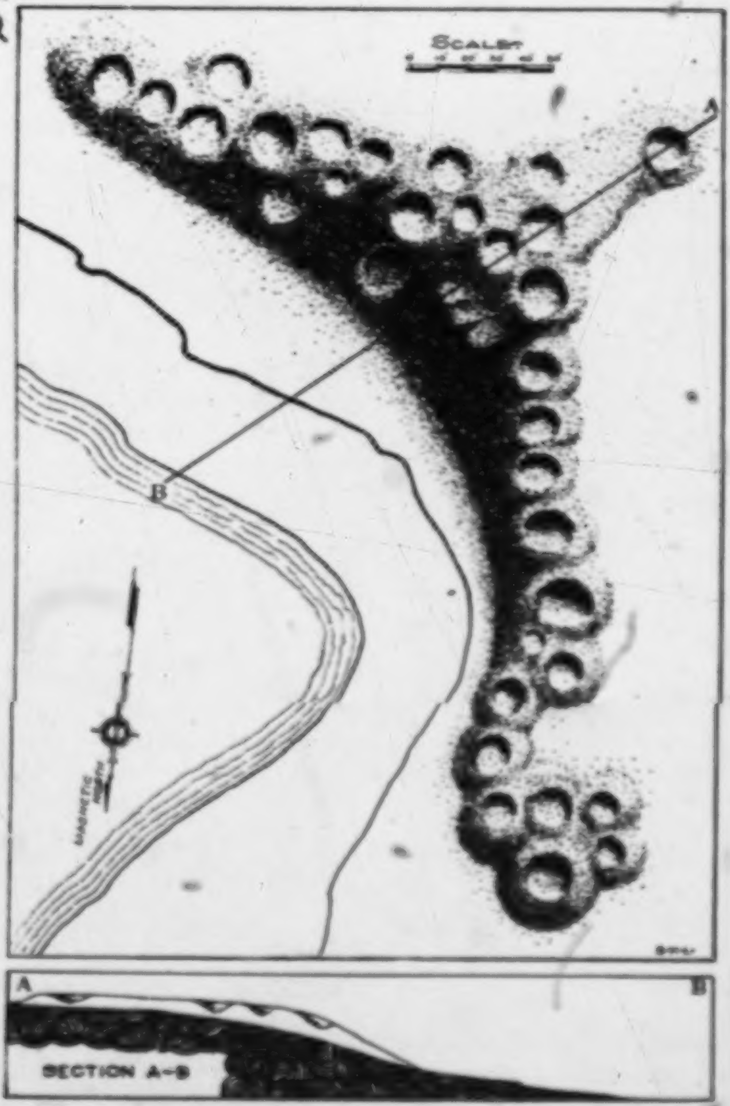
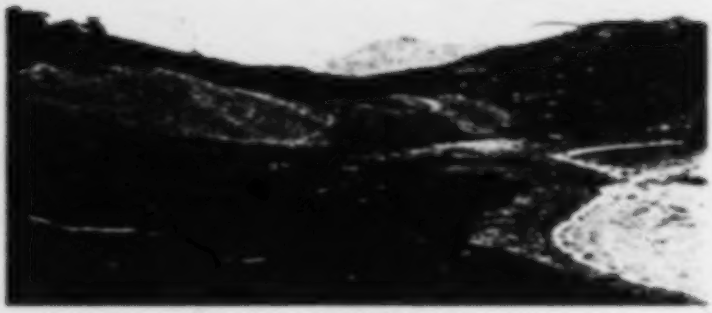

SCALE
A
B
MAGNETIC NORTH
A
B
SECTION A-B

FIG. 96.—Wäpisatumínakulum shellheap, Harberton, Tierra del Fuego.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6



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[illegible] ISLAND

GABLE ISLAND SHELLHEAPS

[p. 180-A]

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

172 they were on the surface and perhaps again centuries later by the weight of the superposed débris. Any theory that the rotting of shells is due solely to age would therefore seem to be untenable.

As a typical example of a Beagle Channel shellheap we shall describe a site (No. 2 in fig. 98) at Harberton. The Yahgan called it *Wápisstumúnakujum*, meaning "the dead whale floated away," in reference to a long past yet tragic alimentary loss. A plan of this midden we show in fig. 96, while a photograph of the southern arm appears in fig. 97. As is usually the case, it stands just above the beach, here composed of shingle on which many shellfish can be picked up. The site fronts on a small cove facing eastward and thus is protected from the prevailing westerly winds and storms. The land has been cleared, but formerly the peninsula was forest-covered and supplied abundant firewood. There is now no water supply nearby, but there may have been a spring on the peninsula which has dried up since the trees were cut down.

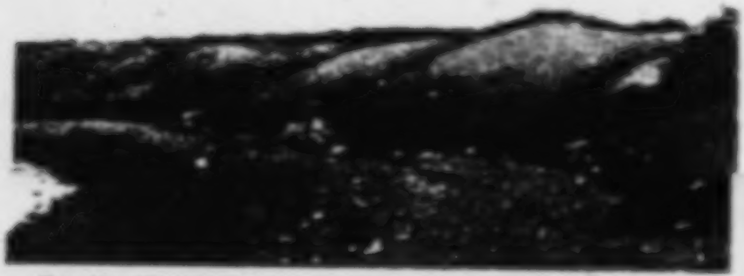

FIG. 97.—Wápisstumúnakujum shellheap, Harberton, Tierra del Fuego.

The thirty-odd house-sites pitting the upper surface of the shellheap face the cove in an irregular line. They vary greatly in size, for it seems that some of them have been abandoned for many years and partly filled in. The southern arm of the midden appears to have been longest inhabited, because additional house-pits in front of the original line were placed in the rubbish as it was built out toward the sea. In some of the larger shellheaps as many as four or five rows of house-pits can be distinguished.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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103
361
172

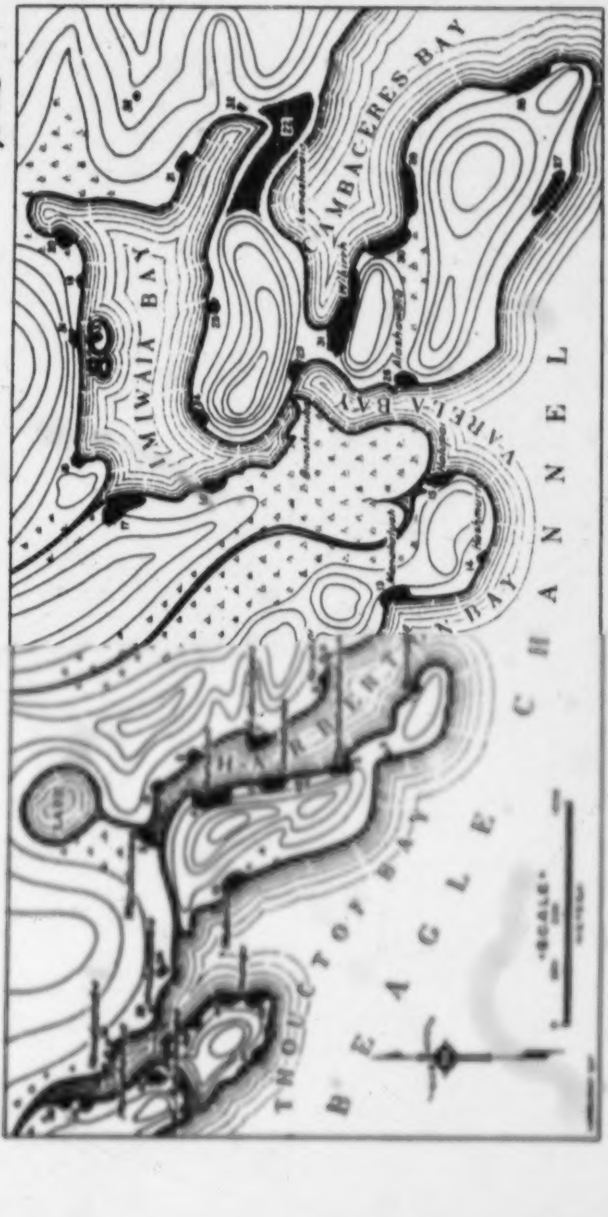
IMIWAIA BAY
CAMBACERES BAY
VARELA BAY
BEAGLE CHANNEL
THOUCTOF BAY
HARBERTON
LAKE
SCALE
METERS

FIG. 98.—Camp-sites and place-names near Harberton, Tierra del Fuego.

Excavation of a test pit (just behind the bushes at the right edge of fig. 97) yielded the following results:

1. The interior shells were found to be as solid as those on the surface.
2. Finely powdered wood-ash had not been washed away, although the drainage was good.
3. At a depth of a little more than a foot appeared a type of mussel-shell which could not be found on the beach locally. To this too great significance should not be attached, as it is well known that shellfish types migrate rapidly. Near San Julian in Patagonia the writer also found giant oyster-shells of a type not known locally.
4. Animal bones are common. At the bottom, long-bones, although wet and very cold (the frost often does not leave the ground till after Christmas), were as strong and sound as if only a year or two old. Vertebræ, ribs, scapulæ, etc., on the other hand, were usually badly rotted and often crumbled at a touch.
5. No distinction between stone objects on the surface and in the interior of the mounds could be detected.
6. The shellheaps throw little light on the culture or antecedents of the Yahgan except for two points:
   a. It seems that no other people except the Yahgan ever occupied southern Fuegia.
   b. It seems that the Yahgan have lived there for a very long time.

On several sections of the coast of Beagle channel a careful examination of the shellheaps was made, because, while an individual mound might give no clue to the density and antiquity of the migratory population in pre-European times, it seemed that a group of mounds might do so. The districts thus studied were: (1) the adjacent Varela, Cambaceres, Imiwaia, Harberton, and Thouctof bays; (2) the channels between Gable island and Tierra Mayor; (3) Puerto Mejillones and the vicinity on Navarin; (4) Róbalo bay on Navarin island. Other localities on Beagle channel or on the islands down to the Horn might equally well have been selected, but the above-mentioned places were convenient and accessible. The location of each shellheap was carefully plotted and an accurate count of the hut-pits made at each site. These counts usually were made by two observers independently to insure their correctness.

Turning now to fig. 98, a map is shown which locates fifty-two shellheaps. In an air-line this map extends from east to west a little more than three miles, but the ever-curving shoreline covers

172 approximately sixteen miles. Fresh water flows into all of these bays and is found in a pond on Cambaceres peninsula behind middens 29, 30, and 31; small springs are encountered in several places. Firewood is obtainable anywhere except on the marshes flanking the Varela river. Shellfish abound everywhere except in the upper part of Imiwaia bay. Excellent shelter in case of storms is amply provided, and, except in the roughest weather, it is possible to round the various peninsulas in a canoe owing to the heavy bands of kelp that encompass them off-shore. It is an ideal region for a people materially equipped to face life as were the Yahgan.

172 361 The number of house-pits counted—1215—indicates that the Yahgan fully appreciated the advantages of the district. The size of each individual camp-site is shown in the following table:

TABLE VI.—YAHGAN CAMP-SITES AND HUTS NEAR HARBERTON

CAMP-SITE	NUMBER OF HUTS	CAMP-SITE	NUMBER OF HUTS
1	12	27	16+
2	35+	28	22+
3	7	29	26
4	40+	30	25
5	50+	31	114+
6	12	32	5
7	31	33	8+
8	8	34	14
9	2	35	22+
10	43	36	6
11	30+	37	5
12	3	38	3
13	43	39	10+
14	7	40	11
15	25	41	25+
16	18	42	9
17	67	43	16
18	15	44	28
19	2	45	27
20	30	46	6
21	9	47	12
22	130+	48	13
23	13	49	4
24	15	50	25+
25	21	51	8
26	35+	52	4
		Total	1215+
		Average	23+

[illegible]

[illegible]

[illegible]

[p. 184-A]

3: Lothrop E-5 (1924-1925) 1928

SH6 Yahgan SH6

172

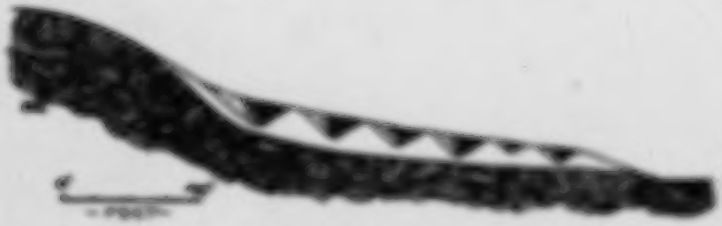

FIG. 99.—Approximate cross-section of shellheap 17, Lavaia Bay, Tierra del Fuego.

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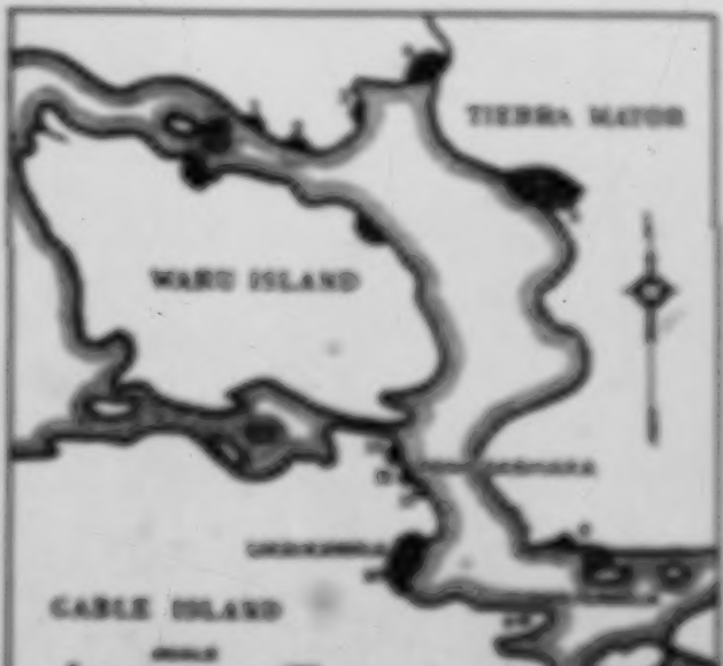
TIERRA MAYOR
WARU ISLAND
GABLE ISLAND

FIG. 100.—Location of shellheaps on the channel between Gable island and Tierra del Fuego.

172
361 The densest population in this group centered on Cambaceres bay, where 367 hut-pits were counted. The camp-sites on the south side, known to the Indians as Wikirrh, display unusually deep house-pits, while Lanashwaia (pl. XVII, b) on the opposite

[102
103]

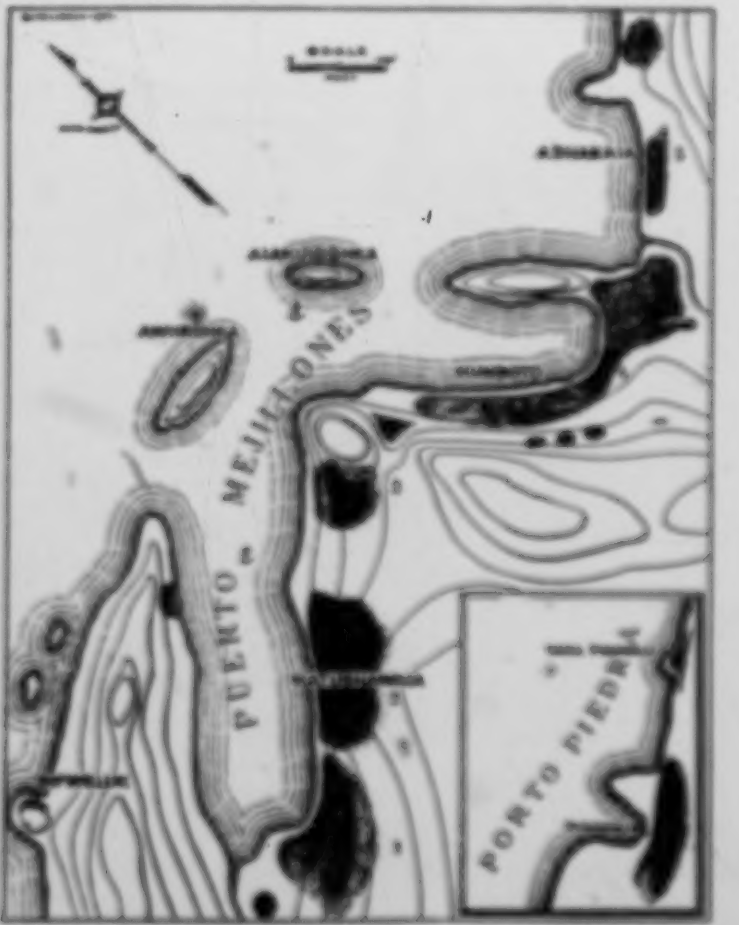

FIG. 101.—Puerto Mejillones and Porto Piedra shellheaps, Navarin island.

shore was evidently a later or less popular settlement, as the pits are relatively shallow.

73/ About 1880 there occurred here one of those tragedies which must have been not uncommon among the Yahgan. A dead whale floated ashore, and Ona and Haush came to join the local Yahgan in the ensuing feast. But all were poisoned by the meat and most of the company died—so many indeed that the survivors fled, leaving the bones of their relatives to whiten the beach for many years afterward.

Imiwaia bay (pl. III, lower) is completely landlocked and the tide runs strongly through the narrow entrance. Hence it is not readily accessible. The large heap No. 22 (Lanishwaia) backs on it, but the principal access to this camp must have been from the Cambaceres side. In the northwest corner, however, there is a large and very deep midden (No. 17), of which we give a section in fig. 99. This is conveniently situated beside a small stream, and its approach from the entrance channel is sheltered from the prevailing westerly winds. Heap 31, on the north shore, was evidently abandoned long ago, as large beech-trees had grown on top of the refuse—the only case of this kind observed by the writer. The upper end of Imiwaia bay is shallow and muddy, and not suited for camp-sites.

Harberton bay, the headquarters of the Bridges' sheep ranches on the south coast, is ideally suited for camp-sites, and no fewer than fifteen were inspected. Of these, No. 2, which has been described above (page 181), and Nos. 4, 5, 11, and 13, are large and important. No. 6 was occupied by Indians in the summer of 1923-24. This bay well illustrates the Yahgan tendency to give every few hundred yards of coast-line a separate name.

The Thouroul bay middens, although numerous, are for the greater part small, and offer no peculiarities.

The other groups of shellheaps examined differ in no material way from the Harberton cluster. In fig. 100 we show the settlements along the channel between Tierra Mayor and Gable island, a sheltered, well-watered, and well-wooded region, which affords a convenient resting place at the end of an exposed strip of coast to the westward. The size of some of the middens is as follows:

Camp-site	Number of Huts	Camp-site	Number of Huts
4	6	9	8
5	24	10	46
6	7	11	12
7	1	12	8
8	8	13	12

[illegible] Of these, No. 6 was occupied by the Yahgan during the summer of 1925-26. No. 10, seen in pl. [illegible] (upper view), was an unusually deep midden conveniently situated beside a spring.

Another group of Yahgan camp-sites, at Puerto Mejillones and at Punta Piedra along the coast to the westward, is seen in pl. [illegible] and mapped in fig. 101. Here practically all the Yahgan now come to pass the winter months, living on the proceeds of the skins they have sold during the preceding summer or on their wages earned on various sheep ranches. They dwell in poorly constructed houses built of ill-fitting boards. The size of the shellheaps is as follows:

Camp-site	Number of Huts	Camp-site	Number of Huts
1	22	5	20
2	30	—	4
3	25	Pisuvala	75
4	10	Yaku Pisuvala	12

[60]

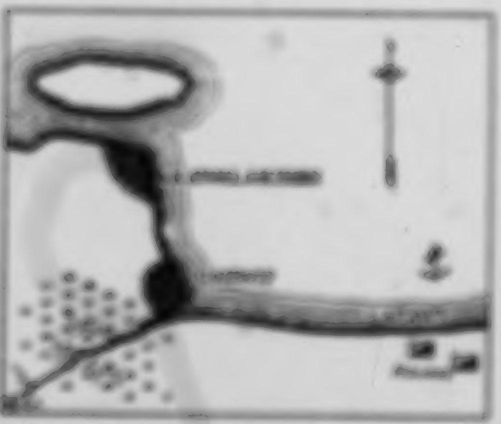

FIG. 101.—[illegible] bay, Navarino island, showing the location of shellheaps.

Puerto Mejillones really is one continuous site, and the original number of house-pits was much greater than that given above, but they have been trampled flat by cattle. The greatest depth of deposit was seen at site 2, where the débris appeared to be 12 or 15 feet thick (pls. [illegible]).

One of the Punta Piedra shellheaps is of unusual size. This site today is covered by several modern houses and the house-pits have been trampled down by cattle.

[72 At [illegible] bay of Navarino island are two large shellheaps containing 61 and 58 house-sites. The one called *[illegible]* is [illegible] [illegible]

[3]
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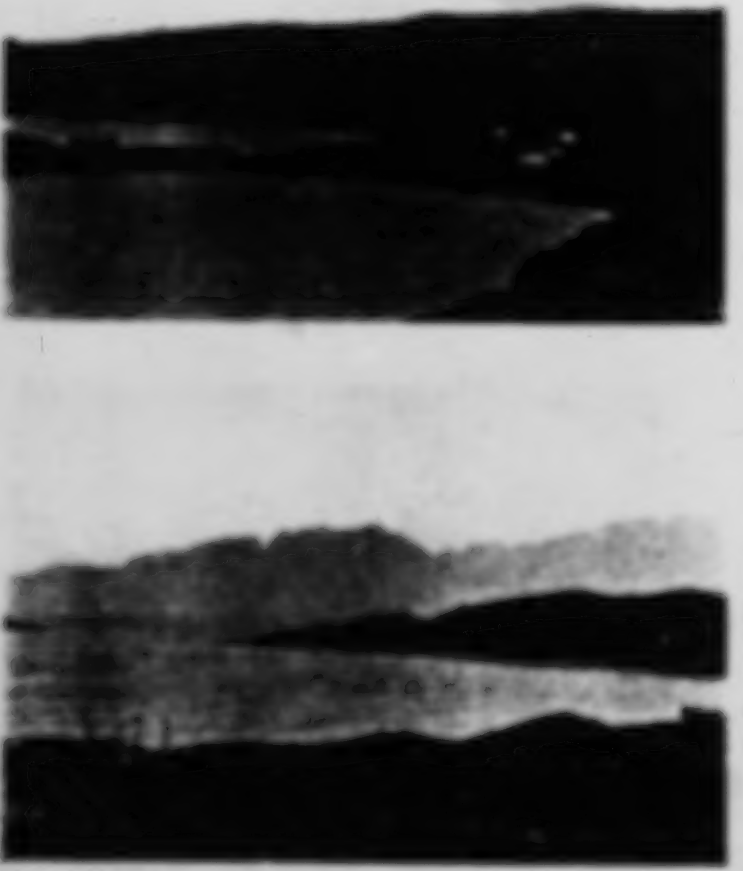

[illegible]

[p.188-A]

172 fig. 102, pictured in fig. 103, is an exceptionally deep midden; it towers over the head, although situated on flat land. On the seaward side this heap has been undercut by the waves, which have exposed a large and solid layer of breccia near the bottom of the refuse.

Fig. [illegible].—[illegible] shellheap, [illegible] bay.

ARCHEOLOGICAL FINDS

We have discussed at some length the nature of the Yahgan camp-sites and now must take up the very primitive remains to be found in their debris.

172 [illegible] First, however, we should remark that the Yahgan, even today when metal tools are readily available, show a marked tendency to use anything which comes to hand, be it a shell fragment or a flint chip. Consequently, in the old days they must have accomplished much of their handiwork with such eolithic implements, and probably used their more formal tools principally for the arduous or very delicate tasks. This tendency is brought out by the small number of really well-wrought implements which have come from the middens in comparison with the comparatively great number of crude or half-finished ones.

The specimens illustrated were picked up on the seaward slope of various middens where the undercutting of the waves had

172
4/2

disturbed the surface. In consequence there is no evidence from what level they had come originally.

1. Knives.—Chipped blades apparently intended for use as knives normally are leaf-shape, from two to five inches long, and, unlike the Ona knives, are worked on both sides. In pl. xix, *a*, *b*, are shown two examples of large knives, each with a small nock near one end to assist in the hafting. Smaller blades appear in *c*, *d*, and *e* of the same plate; these may well have served as knives or conceivably might have been barbless tips for spear or arrow.

2. Scrapers.—Although two kinds of scrapers come from the shellheaps, neither is very common, probably because the Yahgan did most of their scraping with shell. In fig. 104, *a*, we show a disc scraper with a cutting edge completely encircling it. Fig. 104, *b* and *c*, both seem to be scraper-blades fashioned for hafting in the manner of the modern Ona flesher. One of them (*c*) has a recessed curve at one end of the blade; this may have been intended for cleaning bones, or possibly it served merely to give additional grip for the lashings.

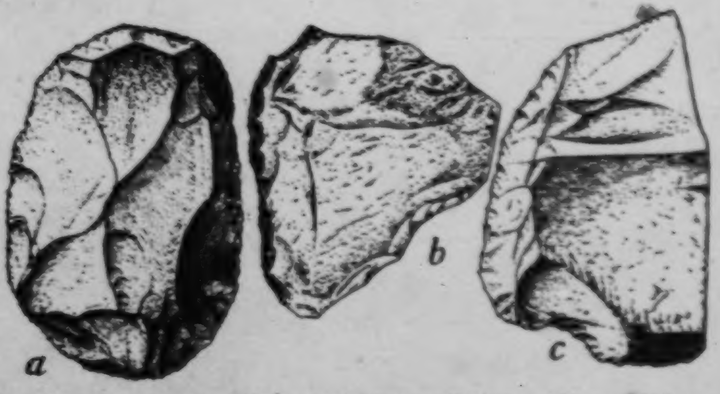

Fig. 104.—Scrapers from Wápisatumánakulum, Harberton, Tierra del Fuego. Length of *a*, 2⅜ in. (14/3977)

The Yahgan with whom the writer came in contact denied that they had ever used this type of scraper. Mr. William Bridges however, stated that he had seen them employed, an assertion borne out by the discovery of these archeological specimens.

1

3: Lothrop E-5 (1924-1925) 1928

SH6 Yahgan SH6

172
4/2

STONE BLADES, WAPISATUMÁNAKULUM, HARBERTON, TIERRA DEL FUEGO

LENGTH OF b, [illegible] cm. ([illegible])

[p.190-A]

3. SPEARPOINTS.—Four spear- or arrow-points are illustrated in fig. 105. Of these, *a* is a triangular blade with barbs but no tang,

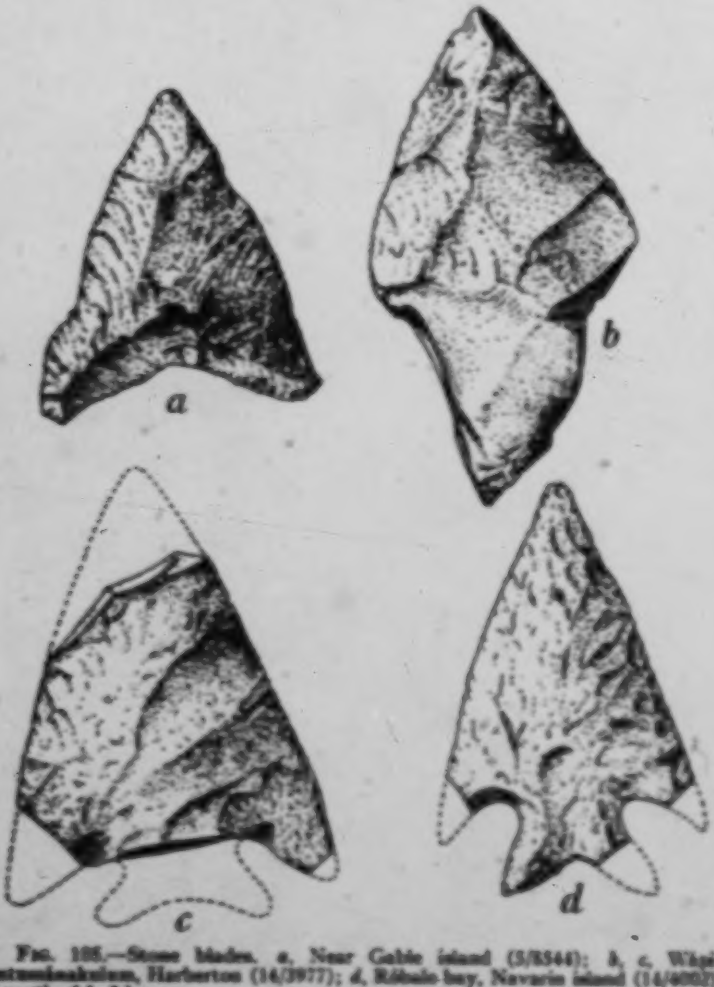

FIG. 105.—Stone blades. *a*, Near Gable island (5/8544); *b*, *c*, Whaimtuuminakuium, Harberton (14/3977); *d*, Róbalo bay, Navarin island (14/6002). Length of *b*, 3 in.

while *b* has a tang but no barbs. However, *c* and *d* had both tang and barbs, and this seems to be the dominant Beagle Channel

172 412 type, because several other specimens have been published by Bove (1883) and Hyades (1891). The general shape of these points is similar to that of modern Ona arrowpoints and ancient stone points from eastern Tierra del Fuego. Yahgan workmanship, on the whole, is cruder than Ona, and to the writer's knowledge no points have been found on the south coast equal to the delicate blade illustrated in fig. 40.

4. Hammerstones, Anvils, Grease Stones.—Every Yahgan family carried an oval water-worn stone which was used for a variety of purposes, such as hammering. These stones (fig. 70) may be picked up at every ancient camp-site.

5. Bone Tools.—Bone tools of modern type sometimes are found in shellheaps under conditions implying considerable antiquity.

Age of Archeological Remains

172 174 The age of the archeological remains on Beagle channel is a problem that has intrigued the writer from the moment of his arrival there, and every effort was made to collect data for its solution. It should be frankly stated at the outset of this discussion that there is no exact answer, but it is nevertheless possible to deduce an approximate figure. There are several methods by which the problem may be attacked; thus we shall discuss (1) the variations in Yahgan speech, (2) known historical movements in other parts of South America, (3) the internal evidence of age in Fuegian shellheaps, and finally (4) their probable rate of accumulation.

1. ANTIQUITY OF THE YAHGAN DIALECTS

174 197 As explained above, the Yahgan spoke five distinct though mutually intelligible dialects. This is rather surprising because (*a*) they were a roving people occupying only a small territory, (*b*) they were exogamous, and (*c*) the total population was only about 3000 individuals. Assuming, as seems probable, that the Yahgan reached Tierra del Fuego more or less as a unit speaking a single tongue, how long did it take them to modify their language in five distinct ways?

In the more civilized parts of the world linguistic change also has taken place, and, because language is not only spoken but written, the archaic forms are preserved and can be studied. For instance, the breaking up of Latin into the modern Romance languages, mutually intelligible only to a very slight extent, can be observed and checked in various stages. In this instance the Latin tongue was grafted on the native speech of various conquered peoples, who undoubtedly pronounced it from the beginning with local flavor so that the separation into dialects began at the outset, its course being retarded by the educated classes. Latin, however, was spoken over a very wide area with relatively poor communications, hence there existed every facility for rapid linguistic change. 174 177

The contrast between this condition and that of the Yahgan is obvious. We should not expect the Yahgan dialects to differ nearly so much in a given time as the Romance tongues. In fact, granted the circumstance, it is surprising that there were any Yahgan dialects at all. The very presence of these Yahgan dialects shows that the tribe had remained stationary as a whole for a great many centuries at least.

2. CULTURAL AND HISTORICAL EVIDENCE

The Yahgan are the southernmost unit of a group of primitive fisherfolk who at various times have lived on the west coast of South America. In southern Peru this fishing population was displaced by the rise of the typically Peruvian agriculturists who later built the great structures seen in ruins today on that coast. While there is yet no exact chronology for Peruvian archeology, the two leading authorities, Tello[1] and Uhle,[2] agree that this event must have materialized at least 2000 years ago in order to explain the known stratigraphy of Peruvian remains. 174

It is a far cry from Peru to Tierra del Fuego, but in the displacement of the Peruvian coastal population there is an ostensible cause for the general shunting to the south of all the coastal peoples. If, as we shall presently show, Fuegian camp-sites give evidence of occupancy at that remote period, then we may at least tentatively consider that the displacement of the Peruvian fisherman and the settlement of Fuegia are correlated, because this change of population in Peru is the only remote migration in South America which archeology has definitely yielded to the realm of history.

In Chile there seems to have taken place a similar displacement of the early population by the Araucanian tribes. Stratigraphical

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[1] Julio C. Tello, *Introducción á la Historia Antigua del Peru*, Lima, 1921.

[2] Max Uhle, *Los Principios de las Antiguas Civilizaciones Peruanas*, *Boletín de la Sociedad Ecuatoriana de Estudios Históricos Americanos*, IV, no. 12, Quito, 1920.

174 studies clearly prove this. Cooper (1917a) has pointed out the general resemblance of the earlier culture at such sites as Taltal with the historic culture of the Magellanic archipelago. He lists as features shared in common with the Canoe Indians: the use of spear and harpoon, and disuse of the bow, nets, coiled basketry, combs, shell necklaces, and supine burial. To this should be added the strikingly close resemblance in physical type. Granted this relationship, however, we lack sufficient evidence to translate it into historical terms, for we cannot say how long ago the Araucanians displaced the earlier culture. Possibly the change in population in coastal Peru pushed the Yahgan into Tierra del Fuego, while a later shift on the coast of Chile may have been responsible for the presence of the Alacaluf; but this is mere conjecture.

3. INTERNAL EVIDENCE OF AGE IN FUEGIAN SHELLHEAPS

172 For several reasons an inspection of Beagle channel shellheaps leads to the conclusion that they mark camp-sites inhabited for many centuries. We list these reasons as follows:

a. *Bulk.*—The first and most obvious sign of age is the very size of the refuse-heaps. Clearly it must have taken a great many centuries to deposit such vast masses of débris. Below we have attempted to calculate the cubic contents of the refuse near Harberton.

b. *Breccia.*—The formation of breccia in the lower levels of middens, to the writer is not a positive criterion of great age, because so little is understood of the reasons which cause shells to unite in a solid mass. If some climatic change of temporary nature caused the formation of hard floors at one time in all shellheaps, then a valuable means of determining relative age would be available, because the depth of the breccia varies.

c. *Trees.*—In one instance, shellmound 51 in fig. 98, large trees were found growing on top of an ancient camp-site. This midden was discovered on the afternoon before our departure for the north, so that there was no opportunity for cutting down a tree to count the rings and thus learn how long ago the site was abandoned. The site is a small one, with only eight house-pits situated at the base of a steep slope rising sharply from the beach.

d. *Land Subsidence.*—Many instances of the undercutting of the base of middens on both shores of Beagle channel (as can be seen in pl. XVI) seem to indicate slight submergence of the land since the first settlement. 172 This conclusion is not in agreement with that of Lovisato (1885), who believes that the Elizabeth Island shellheaps have been elevated several meters. N. O. G. Nordenskjöld concludes that Tierra del Fuego has risen about sixty meters since relieved from the pressure of general glaciation. The slight and recent submergence noted by the present writer may be a local adjustment since the general rising of the land.

E. *Animal Bones.*—Considerable age may be argued from the presence of badly rotted animal bones in a Harberton shellheap. In general this is an almost worthless criterion of age, but in Tierra del Fuego, where the frost scarcely leaves the ground, all animal remains tend to be preserved. The body of a sailor buried in the South Shetland islands was exhumed after several years with the flesh in perfect preservation,[1] so that Beagle channel is only 400 miles from land where animal remains do not decay at all.

4. RATE OF ACCUMULATION OF REFUSE-HEAPS

Mr. N. C. Nelson[2] has most ingeniously worked out the probable 172
age of California shellheaps by determining three factors: (*a*) the
total former population, (*b*) the bulk of the débris, and (*c*) the 174
probable daily rate of deposit. While lacking the concrete data to apply this method of determining age as accurately as has Nelson, nevertheless we shall persist with it, because a definite figure can be reached by this method, a figure not incompatible with criteria for age already discussed. We therefore shall examine the three factors above enumerated, which are not without interest in themselves.

Nelson's estimate of the total population was simply obtained, because he dealt with a permanent village-site. In Tierra del Fuego, however, no site was occupied for more than a brief period at a time, so the population of any camp or even the portion of the year it was occupied cannot be exactly determined. Yet, although the Yahgan were rovers, they wandered in rather fixed limits, hence the number of inhabitants for an area might be calculated in relation to the food supply.

Nelson assumed that each Californian family consists of six 174
individuals. This number might be thought too large for the

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[1] *Geographical Journal*, pp. 65-66, London, 1830.

[2] Shellmounds of the San Francisco Bay region; *Univ. Calif. Pub. Amer. Archaeol. and Ethnol.*, VII, no. 4, p. 345.

174 Yahgan family, but Martial (p. 215) assures us that six individuals was the average seen in more than 200 canoes. More specifically he states that 388 people of all ages were counted in 65 canoes, which results in an average of 5.97.

174 How much shore-line did an average family need to keep it
supplied with mussels, conchs, limpets, crabs, fish, and sea urchins?
162 Let us assume that they required from a third to two-thirds of a
mile. This does not seem unreasonable when we recall that meat and vegetal foods also formed part of their diet. This would mean that around Thouctof, Harberton, Varela, Imiwaia, and Cambaceres bay on the average there stood 12 to 24 wigwams, containing 24 to 48 families, or 144 to 288 individuals of all ages. Furthermore, from one to two percent. of the house-sites would always be occupied at any given moment. That house-sites were tabooed where death had occurred would not affect this calculation over many years, because these places were reoccupied when the deceased had been forgotten.

A means of checking this broad estimate of the population exists in the census of the Yahgan[1] made by Rev. Thomas Bridges. The figures he gives are:

Navarin island	237
Hoste island	258
Tierra del Fuego (south coast)	218
Picton, Lennox, New islands	35
Wollaston and Hermite islands	65
Gordon island	36
Cuguawaluf (Londonderry?) island	20
Other western islands	60

From this table it appears that in 1883 there were 218 Yahgan on the south coast of Tierra del Fuego between Spaniard harbor and Brecknock peninsula. This figure represents a much reduced population, and it must be multiplied by 3 + to determine the population in the days when the whole tribe numbered 3000. We thus find that the total population of this area exceeded 654. As the western part of Beagle channel is precipitous and pierced by glaciers, most of the inhabitants lived east of Yendegaia bay, and in fact centered on Ushuaia and Harberton. Hence the assumed population of 144 to 288 for the Harberton and adjacent bays means that between twenty-two and forty-four percent. of the total population of the south coast of Tierra del Fuego resided there. 179 The true figure probably falls between these limits, so we may 162 continue to assume that the average population of Varela, Harberton, Thouctof, Cambaceres, and Imiwaia bays was between 144 and 288 individuals.

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[1] Published in the *South American Missionary Magazine* for 1884, p. 224.

To measure the volume of shellheaps accurately would be an 174 endless task. However, the average house-pit with its adjacent share of débris, on the basis of exact measurements, covers approxi- 172 mately 570 square feet. The average depth of deposit runs about 162 two feet, so that each house-pit accounts for 1140 cubic feet of rubbish, and the 1215 house-pits on Thouctof, Harberton, Varela, and Imiwaia bays represent 1,385,100 cubic feet of deposited material.

In order to find the daily rate of deposit, Nelson assumed that each individual ate fifty shellfish a day. By trial he proved that 5000 shells, the daily allotment of 100 people, can be packed into 1200 cubic inches which may be raised to a cubic foot when ash, earth, and animal bones are added. These figures were worked out for California Indians, but we believe that they also will apply to the Yahgan, for if they ate less vegetal food they ate more meat, which would not greatly change the proportion of rubbish.

We may now state our problem and its answer succinctly as follows:

(*a*) Probable number of inhabitants: 144 to 288.
(*b*) Total contents of shellheaps: 1,385,100 cubic feet.
(*c*) Probable rate of deposit: 1.4 to 2.9 cubic feet per day.
(*d*) Number of years sites were inhabited: 1300 to 2600 years.

In criticism of the age deduced for the shellheaps we may point 179 out that while no factor—even the number of heaps in the area discussed and the number of house-pits in those visited—is certain, nevertheless there is no reason that the errors should be cumulative. At any rate, the application of Nelson's method to Tierra del Fuego shows that it has been settled a very long time. To the writer it seems that the larger limit selected for the population is too great, and that the bulk of the shellheaps might well be considerably greater than estimated, because the assumed depth is certainly a very conservative figure.

In view of these figures and the other criteria for age already adduced, it seems not unwarranted to believe that the south coast of Tierra del Fuego has been occupied for 2000 years at least.

PART III

COMPARISONS AND CONCLUSIONS

ORIGIN OF THE FUEGIANS

THE origin of the tribes of Tierra del Fuego is obscured in the mists of the past, but study of their physical type, their language, and their cultural development make it possible to trace them far to the north. Evidence of all kinds blends in agreement that the Yahgan and *Alacaluf*, the Canoe Indians, came down the west coast of South America, where the remains of their ancestors or relatives can be identified at least as far north as Peru. Furthermore, the Foot Indians, Ona and Haush, clearly are connected directly with the inhabitants of Patagonia and perhaps with the tribes of the Chaco and the Amazon valley. The evidence on which these conclusions rest we shall examine in detail.

1. SOMATOLOGICAL EVIDENCE.—Along the west coast of South America a short-statured, dolichocephalic strain repeatedly has been discovered under conditions indicating great antiquity. These people, if not the direct ancestors, may well have been collateral relations of the Canoe Indians of Tierra del Fuego and Patagonia Occidental. This physical type, for reasons too complex for discussion here,[1] is now regarded by discreet and cautious students as the most ancient human strain in the New World. The anthropometry of the Yahgan, herein discussed, indicates that, while they may basically belong to this physical group, they have acquired a short-statured and brachycephalic mixture, generally regarded as the second type to reach the Western Hemisphere. Somatological evidence indicates then that the Yahgan are a cross of the two most ancient types of man in the New World.

The Ona, on the other hand, mesocephalic like the Yahgan, but exceedingly tall, appear to be a cross of two tall strains and of varied head forms. The dolichocephalic factor in this tribe may be

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[1] This subject has been covered by Dixon (1923), and by Hrdlička in *Proc. Amer. Philos. Soc.*, LXV, pp. 150-166.

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of the early variety correlated with short stature, but proof is wanting. At any rate it seems obvious that relationship exists between the Ona and the Tehuelche, legendary giants of Patagonia. To be sure, the modern Tehuelche are brachycephalic, but their heads may be shortened by deformation and the use of a cradle-board, for ancient skulls from Patagonia are mesocephalic or even dolichocephalic.

2. LINGUISTIC EVIDENCE.—Connection between either the Yahgan or *Alacaluf* tongue and any other linguistic group has not been demonstrated. Ona and Haush are closely related to each other and to the Tehuelche of Patagonia, thus forming a linguistic family.

3. CULTURAL EVIDENCE.—For the Canoe Indians of Tierra del Fuego we have a well-developed cultural chain leading northward along the west coast of South America. From the Yahgan culture to the *Alacaluf*, and from the *Alacaluf* to the Chono, more than 600 miles north of the Straits of Magellan, there is but little change in material equipment or manner of life. From Chiloe island far northward archeological remains underlying those of the historic tribes of the coast may be attributed to the ancestors or collateral relatives of the Fuegians. Skeletal remains of the early shellheap culture are dolichocephalic and short of stature, and so belong to the principal strain of the Canoe Indians. Material culture of the coast north of the Chilean islands cannot closely resemble that of Fuegia, for the climate and character of the country rapidly change from moist woodlands to arid desert; yet, as we have already pointed out (pp. 193-196), significant parallels exist. To these we may add that in the balsa with high pointed ends, typical of the desert coast, we have a possible prototype for the Fuegian canoe, shaped like the new moon. On the *Atlantic* coast of South America there are no sea-going canoe Indians south of the equator.

The Foot Indians, Ona and Haush, we have shown to be linguistically allied with the Tehuelche of Patagonia. Physical resemblance between the tall Tehuelche and Ona tribes is striking. Among cultural features found in common we may list the skin robe, skin petticoat, man's bag, moccasin type, house type, transversely hafted scraper, skin water-bag, use of fungus for tinder, tattooing, bow and arrow, etc. Clearly this evidence indicates that the three tribes lived together on the Patagonian plateau long enough to develop a typical culture in common. A further proof

174 that the Ona once dwelt in Patagonia, according to Mr. William Bridges, is that they have a legend concerning a large flightless bird, which obviously refers to an ostrich, or rhea, found in Patagonia but not in Tierra del Fuego.

We can trace then with reasonable certainty the Foot Indians of Tierra del Fuego to the Patagonian plains, but to say when and whence they came to Patagonia is a difficult problem, to solve which but slender evidence exists. I am inclined to see relationship with the tribes of the Chaco and the upper Amazon valley. This relationship is probably rather with an earlier population than with the historic peoples. Mysterious remnants of these earlier settlers exist in the upper Amazon valley. Apparently they are held by the dominant population in a position intermediate between slaves and pet animals. Little is known of their manner of life, except that they are nomadic hunters using the bow and arrow but having no canoes or houses. If a list of culture parallels between the Amazon tribes and Fuegian Foot Indians be made, the features in common, it will be found, with but few exceptions are those we shall show presently to be basic to all Indian culture. It therefore follows that no exact deductions can be made from existing data, chiefly characterized by the primitive state of all the peoples involved. We find exceedingly significant, however, the parallel development of masked dances and initiation in each region, a similarity already indicated (page 93).

4. Chronological Evidence.—One can but wonder when and how the natives reached Tierra del Fuego. The first-comers doubtless were the Yahgan, for we have advanced positive evidence that they had occupied their historic territory for somewhere around twenty centuries. Next to arrive in all probability were the Alacaluf, unless it is thought that the Yahgan, to reach southern Fuegia, pushed through the Alacaluf country after its occupancy. Beauvoir (1915) records a tradition among the Ona that they reached Tierra del Fuego by a land bridge, but afterward a cataclysm formed the Straits of Magellan and isolated them. This tale will hardly bear the scrutiny of geological opinion, and so we are forced to the conclusion that the Foot Indians were ferried across—by the Alacaluf presumably, because they had canoes capable of carrying *fifteen* or twenty people, while the Yahgan had only small ones.

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This sequence of settlement is based on the theory that the Foot Indians could not and did not carry themselves across the straits. To be sure, the Tehuelche stuffed their hide robes with saplings and made rude coracles like the bull-boats of North America.[1] In these, with numerous wettings and considerable peril, they crossed the Patagonian rivers. But by no stretch of the imagination could the storm-vexed tide-ripped waters of Magellan strait be navigated successfully in such flimsy craft.

Mr. William Bridges assured me that neither the Ona nor the Haush, to the best of his knowledge, had ever used a boat. In the summer of 1907 certain Indians were taken to Navarin island to tend sheep, and displayed great apprehension upon the waters of Beagle channel. No Ona could swim, and this tribe crossed swift rivers by forming a huddle so that any individual who stumbled would not fall and be drowned. Lacking all knowledge of navigation, unable to swim a stroke, and inherently afraid of deep water, how could the Foot Indians have crossed to Tierra del Fuego without the aid of others?

Of the Foot Indians, evidently the Haush came first. This is indicated by their geographical location in the southeastern corner of the island, and is corroborated by the existence of place-names of Haush derivation in territory occupied in recent times by the Ona.

The linguistic diversity of the Haush, Ona, and Tehuelche implies separation into distinct groups a very long time ago, because language in that part of the world is known to be exceedingly stable and slow to change. Thus Lista[2] significantly points out that the tongue of Patagonia has undergone little change since Pigafetta, the historian of Magellan, collected a vocabulary in 1520. Similarly Cooper (1917, p. 28) remarks that the Alacaluf vocabulary made by La Guilbaudière not later than 1696 indicates linguistic stability since that date.

We have no archeological indication of when the Foot Indians reached Tierra del Fuego. Yet no aspect of Ona culture implies separation from the Patagonia mainland by more than a few centuries before the voyage of Magellan.

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[1] Musters, 1871, pp. 133-134.

[2] 1880, p. 114. Comparative vocabularies of Pigafetta (1520), Viedma (1781), d'Orbigny, Musters, and Lista, while not identical, are closely similar.

3: Lothrop E-5 (1924-1925) 1928

SH6 Tahgan SH6

FUEGIAN CULTURE STATUS

171/105 We have considered the Foot and Canoe Indians of Tierra del Fuego as they have revealed themselves to modern investigation and as they have been reflected in archeological remains. Before closing this account it will be well to fix their position in relation to cultural development and adaptation to environment in other parts of the world. We shall therefore examine the attainments of the Paleolithic and Neolithic inhabitants of Europe, of the Seri Indians of Mexico, and of the Eskimo—all in the light of Fuegian culture.

A.—FUEGIANS COMPARED WITH PRIMITIVE EUROPEANS

Assayed by the standards of Old World archeology, the Fuegian tribes stand definitely in the early Neolithic stage of culture, for they understood the use of the bow, made coiled basketry, used canoes (which may or may not have existed in Paleolithic Europe), and they had domesticated dogs. As for stoneworking, however, aside from some of their arrow- and spear-points (which are not only well made but barbed), Fuegian implements are fully equaled by finds dating from the *Acheulean* and *Mousterian* floors in Europe; that is to say, the latter half of the lower Paleolithic period.[1] In fact, in the stone drill, invented during the Mousterian age and perfected in the Aurignacian, Europeans possessed a tool unknown to the Fuegians, who could puncture nothing harder than hide or bark with their bone awls. By the time of the Aurignacian period Europe also had developed the bone needle with a pierced eye to which the Fuegians did not attain.

Magdalenian Europe offers strong likeness to the Canoe Indians of Tierra del Fuego, owing to the very similar types of barbed bone harpoons used in both regions. Yet by this time in Europe the chipping of stone had risen to the level of an art, the spear-thrower was widely used (an implement which one suspects that the Fuegian tribes may have forgotten), clothes were carefully tailored (as attested by the finding of bone buttons), elaborate three-strand necklaces were manufactured, and, above all, sculpture was common and painting had reached both relatively and absolutely a very developed phase. The depiction of masked human figures suggests parallel religious phantasmagoria in both regions. In contrast the Fuegians were totally devoid of sculpture, and their painting was limited to the crudest daubs. Their necklaces were most primitive. Their garments were merely wrapped around the body and held in place by hand, or, if they did not completely envelop the body, were tied on by thongs crossing the bare flesh.

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[1] It is unfortunate that the names attached to the great primary periods of human life should denote technological methods of manufacturing stone implements, for current practice distinguishes these epochs and their subdivisions by the fauna and by the kinds of utensils in use rather than by the manner in which they were made. The change in classification became necessary when it was recognized that the Paleolithic technique persisted into the Neolithic and even the Metal ages. We must emphasize that these terms are without chronological significance in the New World.

As to polished stone implements, Tierra del Fuego has produced few. In fig. 61 we show a bola from the east coast. Outes (1905, p. 427) has fully demonstrated that the true home of this weapon is in the northeastern Pampas and that it was unknown in Patagonia until the eighteenth century. Clearly it is no ancestral arm carried to Tierra del Fuego by First Indians in remote centuries, but rather a recent introduction, not long antedating the white colonization. Also we have seen a stone spike excavated in Yahgan territory. Apparently it has been shaped in part by pecking; at least it is an isolated instance of the Neolithic technique.

The rarity of polished stone implements in Fuegia is to be explained not by the lack of aptitude but by the indolence of the natives. To so-called civilized man the chipping of stone seems a mysterious craft, while it is patent that anyone who takes the time can grind a stone to the desired shape. As a matter of fact, the chipping of serviceable tools can be learned with a few days' practice, though of course the more delicate flaking, as with all handicraft, can come only as the result of long experience. And furthermore, chipped implements can be turned out quickly,—it takes only ten or fifteen minutes for a skilled Ona to finish a most delicate arrow-point,—while ground stone implements require patience, mental discipline, and foresight.

This point is one to recall in estimates of all or any phases of Fuegian culture, for it will be found that deficiencies arose not from any innate mental or physical handicap, but from laziness and lethargy. This generalization applies not so much to the necessaries as to the conveniences of life. Thus the Ona bow and the Yahgan spear are admirable weapons, but the houses of both tribes were woefully inadequate. Yet there is no reason why the Yahgan and Ona should not, with forethought and initiative, have made themselves as comfortable as other tribes occupying an equivalent environment. That they did not, to the writer, indicates a lack of something vital in their mental makeup.

The brief comparison we have made between primitive European and Fuegian cultures shows that although the Fuegians had partly attained the archaeological phase called Neolithic in the Old World, nevertheless in most respects they were scarcely better off than the semi-simian Neanderthal man of Europe. Clearly then they were laggards or backsliders in the development of mankind, so that in depicting their manner of life we are justified in assuming that we are recreating a vision of life in Europe or elsewhere many thousands of years ago.

However, the tribes of Tierra del Fuego are not a unique phenomenon, as we shall show by comparison with an equally though differently conditioned New World group.

B—FUEGIANS COMPARED WITH THE SERI

The Seri, who inhabit a barren territory on the eastern shore of the Gulf of California and the adjacent islands, of which the largest is Tiburon, are one of the most primitive Indian tribes on the North American continent. Their climate is hot and dry. Their food supply is abundant—both marine and terrestrial. Like Fuegia the region occupied by the Seri is isolated from the main stream of cultural development, so that the native society probably represents a form of life much more wide-spread long ago.

Like the Fuegians, the Seri had no agriculture and no domestic animals except the dog, which indeed seems to have been half-wild. Their most important food was the turtle, which they caught with a harpoon having a detachable head tied to a line. This may be compared to the Yahgan seal-spear. Long ago they used a two-headed [illegible] spear with the barbs facing inward to catch fish. The Yahgan also employed a two-headed fish-spear but did not set the barbs inward. For boats the Seri made reed balsas with high pointed ends, a seaworthy craft but one which can be used only in warm climates because in rough weather the crew are drenched with spray or wet by water coming through the floor. These balsas the Seri propelled with clam-shells or boards held in the hands. In addition to spearing fish off-shore the Seri also caught them with their hands in shallow pools at low tide like the Ona, and they obtained on the beach large quantities of shellfish—chiefly clams and oysters.

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On shore the Seri gathered various wild vegetal foods. They clubbed roosting pelicans at night. They caught also many deer and rabbits. We use the word caught advisedly, for usually the Seri, fleet of foot and hardy, ran these animals down and literally caught them in their hands. Meat was eaten raw except when there was an oversupply. Then it was partly cooked to tempt their jaded appetites. At times in hunting and regularly in war they employed a bow and arrows of simple type. The arrow had a wooden tip, rarely a chipped stone point.

For tools the Seri used a bone or a wooden awl, a wooden marline spike, a stone hammer and anvil, and a clam-shell. The latter served as a knife, but its shape was not modified, nor was it set in a handle. Manual dexterity was at a minimum among these people, and their implements and weapons were even more primitive than those of the Fuegians.

The fundamental Seri garment was a pelican-skin robe, which, like the Yahgan cape, was shifted from side to side with the wind in inclement weather. Also they wore at times a kilt and sleeved shirt of woven material, and thus they placed themselves on a higher cultural plane than the Fuegians, for they not only had acquired the art of weaving, but of tailoring their garments, neither of which were known to the Indians of Tierra del Fuego. In addition, the Seri wore a belt, often of snake-skin, and sometimes sandals of turtle-flippers. They adorned their persons with necklaces of seeds, of wooden beads, of shell, and of hair. They painted designs on the faces much more elaborate in character than those of the Ona and Yahgan.

Seri houses, scarcely better than the Ona windbreak, were arches of saplings partly shingled with sponges and turtle-shells. Inadequate even in a warm climate, yet they offered more protection comparatively than the Fuegian houses. As the Seri were constantly moving from place to place, these rude shelters were frequently abandoned to be reoccupied on some other occasion.

Of household furniture the chief article was a globular pottery water-jar, because water was scarce in Seriland and had to be transported long distances. A yucca ring-base was provided for the water-jar, and at times two jars were transported in nets slung on a shoulder yoke. In addition the Seri sometimes made a cooking-pot, an open dish, miniature vessels, and crude figurines; they also used a shell cup, and made simple coiled baskets. Their

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171 babies they carried on wooden frames like the Ona. Fire they
105 made with a drill.

From the above remarks it appears that other inhabitants of the New World lived on a technological plane different in detail but no higher than the natives of Tierra del Fuego. Indeed in many respects—notably the lack of a knife and a scraper—the Seri are the more primitive. Yet their need was not so great, because the climate they enjoyed did not make such demands on their vitality.

When we examine social institutions we find the Seri on a markedly higher plane than the Fuegians. The tribe as a whole had marked national consciousness. It was divided into exogamic totemic clans based on maternal descent. Authority was lodged in the matrons, delegated to the elder brother for such masculine occupations as war and hunting. Religious concepts and practices also were on a higher plane than in Tierra del Fuego.

On the whole then we may say that the Seri, like the Fuegians, were a marginal group representing an early cultural stratum; that both peoples were markedly deficient in houses, tools, and accoutrements; but that the Seri, being closer to the fringe of higher culture, had borrowed in rudimentary form such higher arts as pottery-making and weaving, and had become endowed with more advanced religious and social practices. In both cases it seems that, although migratory by nature, their peregrinations had been circumscribed within fixed limits with resultant cultural atrophy, so that centuries had passed with little modification in their form of life.

The status of very primitive groups like the Fuegians and the Seri has bearing on the unknown pioneers who settled the New World, for the simplest and crudest tribes of the present may reflect the condition of their primitive migratory ancestors. We shall examine then the evidence afforded by such backward groups to throw light on the time when the Americas were settled and on the nature of the culture that was first introduced.

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171 Boas,[1] Wissler,[2] Kroeber,[3] and others have brought forward evidence that man reached the New World in a state of cultural development corresponding to the beginning of the Neolithic period in Europe. This hypothesis rests on fairly well assured

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[1] The History of the American Race, *Annals N. Y. Acad. of Science*, xxi, 1912.

[2] The American Indian, New York, 1917.

[3] American Culture and the Northwest Coast, *Amer. Anth.*, n.s., xxv, no. 1. Also *Anthropology*, New York, 1923.

ground. In the first place, no American tribe, past or present, living on the Paleolithic phase of culture has yet been detected. In other words, all American Indians, even the most primitive such as the Fuegians and the Seri, have Neolithic elements in their culture. Hence with justification we can assume that man did not reach America until the Neolithic epoch. Furthermore, the absence from the Western Hemisphere of all typical Old World domesticated plants and animals, except the dog, shows that all significant migration to America had ceased before these elements had been developed. Thus the settlement of the Americas is fixed by these limits: the close of the Paleolithic period, but before the Neolithic period had fully dawned.

When did the Neolithic period begin? According to the elaborate chronological yard-stick developed for European archeology, this would take us back more than 10,000 years. But Europe geographically is only a peninsula of Asia, and archeological evidence denotes that the Neolithic culture developed in Asia and spread to Europe long afterward. Primitive Neolithic arts and industries may have reached America as soon as, if not before, they penetrated Europe. At present we cannot say whether the migration to the New World was completed in a century or in a thousand years. We cannot hope further to correlate Old World and New World archeology until stratigraphical and chronological studies in Asia have yielded the secret of the development of Neolithic culture.

To the above remarks we may add that, according to current geological opinion, glaciation need not be considered a barrier to migration, because the ice sheets were not in existence at the period (as indicated by the cultural evidence) when the settling of America took place. Of the three North American ice sheets, the Cordilleran or western field, which alone could have proved a barrier to travel from Asia, was the first to disappear. The Labrador sheet, the last and most recent, is estimated to have released Niagara Falls from 20,000 to 35,000 years ago.[1]

Well documented New World archeological finds, obviously of great antiquity, have been unearthed in North, South, and Central America during the last two decades. The remains to which the greatest age is assigned, however, Basket-maker in the United States and "Archaic" in Mexico and Salvador, all indicate a much higher technological phase than that of the Fuegians or Seri.

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[1] See A. P. Coleman, *Ice Ages, Recent and Ancient*, New York, 1926, p. 88.

17 Hence it seems that the limits of our definite knowledge of the past are far from extending back to the time of the first immigrants. However, as pointed out by Kroeber,[7] the primitive American cultural traits can be deduced by listing the elements of primitive nature having a wide distribution through both continents. On this basis it is not unsound reasoning to assume that characteristics common to widely separated primitive tribes in radically different environments, such as the Seri and the Fuegians, are basic in American culture. These features are:

1. A windbreak or domed house of saplings covered with the most readily available materials.
2. Untanned skin robe sewed with sinew.
3. A small bib-like garment.
4. Use of facial and body painting.
5. Simple necklaces.
6. Cradle with cross-slats.
7. Coiled baskets.
8. Fire-drill. (This the Patagonians had, and probably once the Fuegians.)
9. Boats or rafts with high pointed ends.
10. The self bow and stone-tipped arrows.
11. The harpoon with single, double, and detachable heads.
12. Shellfish, fish, game, and wild vegetables as food.
13. Domesticated dogs.

From this list we gain a definite picture of the material culture enjoyed by the first settlers in the New World. It is not a complete visualization, however, of their manner of life, because it does not include social and religious customs. Among these in all probability should be included shamanistic control of spirits and disease, puberty rites attended with the infliction of physical suffering, masked ceremonials, and social organization based on local groups of blood relations. All these added features were characteristic of all the tribes of Tierra del Fuego.

We have listed as probable features of primordial American culture certain traits not included by Kroeber. On the other hand he incorporates others not found in Tierra del Fuego, such as the spear-thrower, twined baskets, nets, mortars, rattles, whistles, and flutes. Their absence from Tierra del Fuego may indicate that they should not be considered as primitive American traits,

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[7] Op. cit.

(1) because they are objects which would have been valuable to the Fuegians, because they could have been made from materials easily obtainable, and because they were not superseded by other inventions. If the Fuegians had enjoyed these features, I can see no reason why they should have given up using them; yet some of the listed traits, the spear-thrower for instance, have such wide New World distribution that it is hard to place them on any but the earliest cultural plane.

Fuegians Compared with the Eskimo

We have seen that the natives of Tierra del Fuego lived on a cultural plane comparable with that of the early inhabitants of Europe, who were the advance guard of culture-bearers from central Asia toward the west, just as the Fuegians may have been toward the east. We have also seen that the low plane on which the Fuegians lived was not an isolated phenomenon in the New World, but was approached or duplicated elsewhere. We shall now compare the cultural status of the Fuegians and the Eskimo, because their respective habitats are environmentally parallel and their necessities were similar. In fact the Eskimo are called on to face the more rigorous conditions of the two, for they live in higher latitudes where the winters are darker and colder, while the lack of trees in many places forces them to exercise great ingenuity to find substitutes for wood.

The Eskimo inhabit the Arctic coast of North America and the adjacent islands, including Greenland. As in Fuegia, the vegetation of their habitat is not rich enough to support life, so that they have to subsist principally on animal food. During the winter the polar seas freeze over, and the Eskimo spear seals as they rise to their blowholes in the ice. When open water forms, they take to the sea in boats made of a wooden frame covered with hide, which in every way seem stronger and more seaworthy than the Yahgan canoes. In these they spear seal, walrus, and whale. In summer the Eskimo spear fish and birds, and make long trips inland to shoot deer with bow and arrow. With the return of winter, seal again becomes their only food supply.

For houses, in the summer the Eskimo use skin tents or stone walls roofed with skin which give better protection than the Yahgan wigwams and are infinitely superior to the Ona windbreak. In winter they make themselves snug in ingeniously constructed,

[7] multi-chambered, snow houses, usually provided with skin linings, windows, and ventilation holes. They take advantage of the propensity of heat to rise, locate their houses on sloping ground, and place their living-quarters in the uppermost part of the house. Under favorable circumstances the temperature can be maintained at above 70° or 80° Fahrenheit by means of an oil lamp.

As for clothing, the Eskimo are as well provided as the Fuegians were deficient. Their carefully tailored fur garments not only supply warmth and protection to every part of the person, but are so skilfully designed that adequate ventilation is supplied as well. Arctic explorers of recent years have been unable to design garments better suited to the climate and have adopted the Eskimo dress.

The chief weapons of the Eskimo are the harpoon and the bow. Their harpoons are made with detachable heads like the Yahgan seal-spear, but the points are designed to turn in the flesh of the wounded animal so that they form a toggle when it tries to escape. Harpoons of slightly different size and type are employed for small seals, for ordinary seals, for walrus, and for whale. To secure the larger animals a cord leading from the harpoon-head is attached to inflated seal-hides or hoop-drags, which enables them to tire out the wounded animal rapidly. The great superiority of the Eskimo equipment lies partly in their ability to drill bone and wood, so that they can lash or rivet joints more securely than the Fuegians. Also all the accessories, the ivory support for the hand lashed on the shaft, the loop with ivory clasp to hold the harpoon line, ivory plugs to stop the wounds of the slain animal, ivory swivels, ivory toggles, etc.—all these show a control of material never attained by the Fuegians. Furthermore, these details show mental superiority in that the Eskimo look beyond the bare necessities of the chase and provide themselves with comforts and conveniences.

The Eskimo bow is made of one or more pieces of spruce-wood riveted together, or of antler. It is sinew-backed—an adequate and powerful weapon in spite of a lack of proper material for bows. The arrowhead is usually ground stone riveted to a foreshaft lashed to a main shaft. In addition the Eskimo have a specialized type of bird-spear and fish-spear far superior to anything in Fuegia. Also they propel lances with throwing-sticks. Furthermore, they catch fish with hook-and-line, and with an ivory minnow for bait.

When we examine Eskimo tools it is found that their makers are neat and finished workmen, and that they provide for their primitive necessities most adequately. Their knives and scrapers are ordinarily of iron or, when metal is unavailable, of stone ground down to thin, uniform, and symmetrical blades, which are hafted to wooden or ivory handles with rivets or gut lashings. Other tools include ivory needles, thimble, sharp graving tool, arrowshaft straightener, and—most important of all—the pump-drill. This last implement makes possible the rapid drilling of bone, stone, and wood, which contrasts strongly with the inability of the Fuegians to pierce anything harder than bark or skin. Among other elements of Eskimo material culture we should mention the stone lamp, fork and spoon, drinking tube, snow-goggles, and the sled with harness, traces, and toggles for pulling it.

Esthetically the Eskimo are not on a low plane. Their garments are distinctly beautiful from the juxtaposition of contrasting furs and are further adorned with beadwork. Their carvings in relief are realistic and charming. Incised drawings on bone and ivory show vigor and imagination. Their games, including cat's-cradle, are much more complex than Fuegian pastimes.

Like the Fuegians, the Eskimo lack definite social organization larger than the family. Both groups are polygynous. The Fuegians trace blood lines farther and are more rigid in debarring marriage of relatives.

Religiously the Eskimo are on the same plane as the Fuegians, but their religious activities played a larger part in their lives. In general they believed in supernatural beings, most of whom were malevolent, and they attempted to appease these creatures by prayer and offerings.

We have given but the briefest outline of Eskimo culture, for it is too complex to be summarized in a few words; yet enough has been said to indicate that the Eskimo live entirely as a hunting people, but in almost every aspect of life they are better off than were the natives of Tierra del Fuego. And this in spite of the more rigorous climate the Eskimo have to face. However, the comparison is not entirely fair, because the Fuegians were completely isolated, while the Eskimo received cultural impulses from more civilised neighbors such as the tribes of the northwestern coast of Canada or of northeastern Asia. The belief is not unjustified that climate and environment are the limiting factors with the Eskimo, and that, given better opportunities, they would work out a superior mode of existence.

181 We have already pointed out that the lack of mental vigor seemingly underlay the cultural deficiencies of the Fuegians. This in turn we may trace to their manner of life, thus forming a vicious circle. Partial nakedness in the snows of winter is possible only to those endowed with a constitution we cannot help but admire, yet it can only result in unusual demands on the vitality and in the stunting of mental growth. Out of such pictures as the naked mother nursing a naked new-born child with driving sleet melting on them both, described by Darwin (1839, p. 235), one cannot envisage the breeding of mentally alert human beings. The Yahgan, writes Barclay (1904), mark "the limit to which a man may strip himself of all aid and comfort and yet survive and perpetuate his kind." "Their skill," says Darwin, "in some respects may be compared to the instinct of animals; for it is not improved by experience."

The writer does not regard the climate of Tierra del Fuego as a necessarily stunting factor; indeed the ample and hospitable scale of living introduced by the sheep ranchers proves that it is far from so. Wild foods—vegetal, game, and fish—can be procured with comparative ease. The discomforts of aboriginal life could well have been eradicated by forethought and a more aggressive mental attitude. This the missionaries tried vigorously if unsuccessfully to instil, and so the Fuegian tribes have quietly melted away in the face of the competition of our ruthless civilization.

[pp. 213-4 contain no text]

3: Lothrop E-5 (1924-1925) 1928

SH6 Yahgan SH6

Ona SH4

VOCABULARIES

WHILE I made no study of Fuegian linguistics, yet I endeavored to record the native terms for all aspects of their material culture and to set down such other linguistic data as came my way without special effort on my part. These words are given below. Fuegian phonetics and variation in pronunciation have been briefly discussed in the main text. To properly represent the explosive force of the Ona speech is beyond any phonetic system in use (see page 49). I have employed consonants in their normal English values, except *g*, which has been used to designate *ch* as in *loch*, and ᵉ and ᵃ which are scarcely audible. Vowels have the following values:

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a as in *father*
e as *ey* in *they*
ĕ as in *hen*
ᵉ a barely audible *e*
i as in *police*
ĭ as in *ill*

o as in *no*
u as in *rule*
ŭ as in *gut*
au as *ow* in *how*[1]
ai as in *aisle*

ONA VOCABULARY

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ANIMALS AND BIRDS

cururucho, *karkai*.
dog. See page 50.
dove, *akk*.
duck: (1) A black duck, *tolchin*; (2) a black duck, *gialirek*; (3) pintail duck, *kilis*; (4) a small duck (*Querquedula cyanoptera*), *kraikh*; (5) a white-bellied duck, *oyel*; (6) steamboat duck, *kove*; (7) unidentified duck, *kokoyoncale*; (8) unidentified duck, *kalk*.
fox, *wach*.
goose, kelp, *aaich*.
goose, upland: (1) male, *kaikén*; (2) female, *kiörra*ᵉ; (3) very large, *karrk*.
guanaco. See page 48.
gull, *kaperk*.
hawk (?), *kemèrrchi*.
nutria, *ooyep*.
owl, *kauk*.
plover, *kirke*.
seal: (1) *korre*; (2) *kemlik*; (3) *kokepen*; (4) male seal, *kilaynik*; (5) female seal, *kinbrakout*.
tucutucu, *ape*.
unidentified birds: (1) *kaly*; (2) *kilne*; (3) *korke*; (4) *kakain*; (5) *kau*; (6) *ohink*; (7) *chip*.
whale, *ochr*ᵉ.

DRESS AND ORNAMENT

anklet: (1) of reed, *tai*; (2) of sinew, *chorrp*.
headband: (1) warrior's, *gichilg*; (2) shaman's, *jkàrrù*ᵉ.
leggings, *irrh*ᵉ*kill*.
moccasin: (1) adult type, *kilonni*; (2) child's type, *desk*.
pubic covering, *akk*.
robe, *kli*.
woman's slip, *kai den*.

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[1] Except in cases of *áu*, *ei*, and *ai*, where each of the vowels has its distinct value.

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HOUSEHOLD EQUIPMENT

182 bag: (1) large fox-skin bag, [illegible]; (2) small fox-skin bag, [illegible]; (3) guanaco-hide bag, [illegible]; (4) horse-skin bag, [illegible]; (5) water-bag, [illegible].
ball, [illegible].
basket, tai. (This word is used for grass, grass-seeds, baskets, and articles woven of grass.)
carrying harness, [illegible].
comb, [illegible].
cradle, [illegible].
fire-tongs, [illegible].
fungus used for tinder, [illegible].
pyrites, [illegible].
stick: (1) for walking, [illegible]; (2) for the windbreak, [illegible].
windbreak, [illegible].

HUMAN BODY

skull: (1) top of, [illegible]; (2) front of, [illegible]; (3) zygoma, [illegible]; (4) nasal bone, [illegible].
jaw, [illegible].
hair, [illegible].
ear, [illegible].
throat, [illegible].
breast, [illegible].
ribs, [illegible].
heart, [illegible].
diaphragm, [illegible].
stomach, [illegible].
collar-bone, [illegible].
scapula, [illegible].
humerus, [illegible].
forearm, [illegible].
wrist-bones, [illegible].
hand, [illegible].
fingers, [illegible].
thumb, [illegible].
first finger, [illegible].
first and second fingers, [illegible].
third and fourth fingers, [illegible].
buttock, [illegible].
leg, [illegible].
knee-cap, [illegible].
shin, [illegible].

MATERIALS

ashes, [illegible].
bone, [illegible].
charcoal, [illegible].
clay, white, [illegible].
feather, [illegible].
fungus, edible, [illegible].
grass, tai.
guanaco back sinew, [illegible].
guanaco neck thong, [illegible].
pitch, [illegible].
stone, [illegible].
tree: (1) [illegible]; (2) dead standing tree, [illegible]; (3) dead fallen tree, [illegible]. (For special varieties of trees see page [illegible].)
water, [illegible].

NUMBERS

See page [illegible].

TOOLS

arrowshaft polisher: (1) of skin, [illegible]; (2) of stone, [illegible].
awl, [illegible].
beater for skins, [illegible].
bone chipping tool, [illegible].
knife, [illegible].
scraper: (1) for hides, [illegible]; (2) for wood, [illegible].
whetstone for chipping tool, [illegible].

WEAPONS

arrow, [illegible].
arrow feather, [illegible].
arrowhead, [illegible].
bird-snare, [illegible]. The handle is [illegible].
bow, [illegible].
bowstring, [illegible].
quiver, [illegible].
seal-net, [illegible].
sling, [illegible].
spear, [illegible].

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MISCELLANEOUS

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man, [illegible].
woman, [illegible].
child, [illegible].
infant, [illegible].
fire, [illegible].
flame, [illegible].

earth, *wuk*.
sky, *ára*.
afternoon, *gringuilrá*.
sunrise, *maked*.
rain, *chálo*.
initiation lodge, *hain*.

YAHGAN VOCABULARY

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ANIMALS AND BIRDS

[illegible], [illegible].
fish: (1) locally called mullet, [illegible]; (2) locally called sardine, [illegible].
goose, kelp, [illegible].
guanaco, *amarajéma*.
heron, *térwach*.
porpoise, *showiama*.

CANOE PARTS AND EQUIPMENT[1]

bark of *Nothofagus betuloides*, [illegible].
canoe: (1) of bark, [illegible]; (2) of wood, [illegible].
fireplace, [illegible].
gunwale, [illegible].
mooring rope, *shabanf*.
mooring thong, *wurrsk*.
paddle, *ápi*.
ribs, *ushkúlakin*.
whalebone, *tirsh*.

DRESS AND ORNAMENT

guanaco-skin cape, [illegible].
headband: (1) of heron-feathers, [illegible] (eastern dialect, [illegible]); (2) of kelp-goose down, [illegible].
leggings, [illegible].
moccasin, *kili*.
necklace of shell, *apárrshka*.
pubic covering, *máshwaláma*.
wristlet or anklet, *mulamaair*.

HOUSEHOLD EQUIPMENT

basket: (1) hitched coil ("Fuegian" basketry), [illegible]; (2) twisted hitched coil, [illegible]; (3) knotted hitch without foundation, [illegible]; (4) wrapped, [illegible].
bucket, [illegible].
comb, [illegible].
fire-tongs, [illegible].
fungus used as tinder, [illegible].
house, [illegible].
[illegible] of seal-hide, [illegible].
pouch: (1) of guanaco-hide for fire-making apparatus, *aslon*; (2) of guanaco-hide for shaman's paraphernalia, *kamuláf*; (3) of otter-tail for tobacco, *yeten*; (4) of seal-bladder for oil, *athklakáni*; (5) of seal throat for paint, *yái*; (6) of seal-gut for oil, *kélia*.
pyrites, *r'wálli*.
shell cup, *aufkin*.
stick for painting face, *téábikamána*.

MATERIALS

gum, [illegible].
guanaco-sinew, [illegible].
kelp: (1) ordinary variety, [illegible]; (2) broad-leafed variety, [illegible] (eastern dialect, [illegible]).
moss, [illegible].
pumice, [illegible].
seal-hide thong: (1) for joining harpoon-point and shaft, *tamatá*; (2) for circular lashing, *tamawára*; (3) for mooring canoes, *wurrsk*.
shell: (1) for drinking-cup, *aufkin*; (2) for necklace, *kaásh uadálu*; (3) for scraper-blade, *chiamáuha*.
whalebone, *tirsh*.
wood. See Table I, page 29.

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[1] See also household equipment, and weapons and hunting equipment.

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TOOLS

awl, *ámi*.
bark remover: (1) for man, *sáuahal*; (2) for woman, *úshapu*.
scraper: (1) of shell, *tewl'us*; (2) of steel, *usina*.
sharpening stone, *chipi*.

WEAPONS AND HUNTING EQUIPMENT

bird-snare, *aárum*.
club, *kiwa*.
dip-net, *chiwanâsh*.
fish-line, *iípim*. The sinker is *tirshir*; the bait cones is *tahalîma*.
harpoon: (1) single-barb type, *awaia* (eastern dialect, *aoia*); (2) double-barb type, *waiki* (eastern dialect, *wrk*). The shaft is called *shoshala*; the thong around the socket is *tamamira*; the thong from point to shaft is *iámata*.
harpoon-point case of seal-hide, *yamika*.
knife (steel), *kárfhar*.
sling, *waárad*, *waárad*.
spear: (1) for fish, *shuakrin* (eastern dialect, *ashánaia*); (2) double-headed fish-spear, *áwpiy ampa*; (3) crab-spear, *sâa* (the shaft is *aâwanamâna*); (4) limpet-spear, *haláina*; (5) guanaco-spear, *waaai*.
torch (made of bark of *Nothofagus betuloides*), *alirakum* (eastern dialect, *aálaka*).

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BIBLIOGRAPHY

[This bibliography contains all works to which reference is made in the main text. In addition I have listed all available titles published since 1917 in order to form a supplement to the Bibliography brought out by Cooper in that year. In many cases I have not been able to obtain copies of such recent works and have no knowledge of their contents—S.K.L.] 113

A. B.

1920 Noticias históricas del Museo Regional "Mayorino Borgatello" por el Salesiano A. B. Punta Arenas.
Contains account of the formation and administration of the local museum and photographs of ethnological interest.

Agostini, Alberto M. de

[1923] I miei viaggi nella Terra del Fuoco. Torino.
Contains a truly remarkable set of photographs, representing years of travel in Fuegia. One chapter is devoted to the Indians.

1924 Zehn Jahre im Feuerland; Entdeckungen und Erlebnisse. Leipzig.
Contains remarkably fine pictures.

[n. d.] Los Onas. Torino.
A series of twelve post-cards issued in a book.

Agostini, Giovanni de

1891 Geographische und ethnographische Aufzeichnungen über das Feuerland. Gotha.

Alvarez O, Auristela

[n. d.] Monografía histórica del Territorio de Magallanes. Concepción.
Contains a brief account of the Indians, and two photographs.

Barclay, William S.

1904 The land of Magellanes, with some account of the Ona and other Indians. In *Geographical Journal*, vol. xxiii, no. 1, London.

1926 The land of Magellan. London.
Contains an excellent summary of the history of the island, various observations on the Indians, an account of the Canabel family (Ona) written by Lucas Bridges, and some good photographs.

[Beauvoir, José Maria]

1915 Los Shelknam, indígenas de la Tierra del Fuego. Buenos Aires.

Bertacchi, Cosimo

1924 La Terra del Fuoco nel libro di un missionario italiano. In *Nuova Antologia*, Sept., Roma.

Βασίλας, Δ.

1919 Ἡ Γῆ τοῦ Πυρός. Νέα Ὑόρκη
An account based largely on Darwin, Wilkes, and Rousson. Map and illustrations.

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113 Borgatello, Maggiorino

1922 I popoli della Patagonia meridionale e Terra del Fuoco. In *La Terra e la Vita*, vol. I, Roma.

1924 Nella Terra del Fuoco, Memorie di un missionario salesiano. Torino.

Contains map, 49 plates, and 171 text figures.

Bourne, B. F.

1853 The captive in Patagonia. Boston.

Bove, Giacomo

1883 Expedición Austral Argentina. Informes preliminares presentados á S.S.E.E. los Ministros del Interior y de Guerra y Marina de la República Argentina. Buenos Aires.

Bridges, Thomas

1884 Mœurs et coutumes des Fuégiens. [Translated by Hyades from a MS. prepared in 1866.] In *Bull. Soc. d'Anthr. de Paris*, ser. III, vol. VII, Paris.

1886 El confín sur de la República: La Tierra del Fuego y sus habitantes. In *Boletín del Instituto Geográfico Argentino*, tomo VII, cuaderno II, Buenos Aires.

1893 La Tierra del Fuego y sus habitantes. *Ibid.*, tomo XIV, cuadernos 5-6, Buenos Aires.

Brosses, Charles de

1756 Histoire des navigations aux terres australes. 2 vols. Paris.

Cojazzi, Antonio

1914 Los indios del archipiélago fueguino. In *Revista Chilena de Historia y Geografía*, tomos IX-X, Santiago de Chile.

Cook, James. *See* Hawkesworth

Cooper, John M.

1917 Analytical and critical bibliography of the tribes of Tierra del Fuego and adjacent territory. *Bull.* 63, *Bur. Amer. Ethnol.*, Washington.

1917a Fuegian and Chonoan tribal relations. In *XIX Intern. Congr. Americanists*, Washington.

1925 Culture diffusion and culture areas in southern South America. In *XXI Intern. Congr. Americanists*, Göteborg.

An important summary of material culture and literary sources, together with a sound analysis of chronological relationships.

Dabbene, Roberto

1902 Viaje á la Tierra del Fuego y á la isla de los Estados. In *Bol. Inst. Geogr. Argentino*, tomo XXI, Buenos Aires.

Darwin, Charles

1839 Narrative of the surveying voyage of His Majesty's ships *Adventure* and *Beagle* between the years 1826 and 1836 . . . vol. III. Journal of researches into the geology and the natural history of the various countries visited by H. M. S. *Beagle*. London.

Deniker, J.

1892 Anthropologie Fuégienne. In *VIII Intern. Congr. Americanists*, Paris.

3: Lothrop E-5 (1924-1925) 1928
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Dixon, Roland B.
1923 The racial history of man. New York. London.
Contains a useful discussion of the multiple origin of the American Indians (pp. [illegible], [illegible]) and a summary of Fuegian somatological data (pp. [illegible]). 113

Fagalde, Alberto
1901 Magallanes, el país del porvenir. Valparaíso.

Fitzroy, Robert
1839 Narrative of the surveying voyages of His Majesty's ships *Adventure* and *Beagle* between the years 1826 and 1836 . . . Vol. ii. Proceedings of the second expedition. London.

Fuentes Rabé, Arturo
1922-23 Tierra del Fuego. 2 vols. Valdivia.
Contains (pp. [illegible]) an account of Fuegian ethnology based on Hyades, [illegible], and original observations; a transcript of Ona mythology from Cojazzi; details on treatment of the Ona by white settlers.

Furlong, C. W.
1912 Hunting the guanaco. In Outing, vol. lxi, no. 1, New York.
1915 The Haush and Ona. In *XIX Intern. Congr. Americanists*, Washington.
1917 Tribal distribution and settlements of the Fuegians. In *Geographical Review*, vol. iii, no. 3, New York.
Contains a full discussion of the subject, based on data obtained from the Bridges family.

Gallardo, Carlos R.
1910 Los Onas. Buenos Aires.

Gusinde, Martin
[Father Gusinde made four journeys to Tierra del Fuego to study the Indians for the Museo de Etnología y Antropología of Santiago. The results of his researches are still appearing in print as this work goes to press, so that the titles herein given do not form a complete list. The importance of these studies, based on painstaking field studies, can scarcely be overstated.]
1922a Expedición á la Tierra del Fuego. In *Museo de Etnología y Antropología, Publicaciones*, tomo ii, pp. 9-43, Santiago de Chile.
1922b Die Feuerländer, einst und jetzt. In *XX Intern. Congr. Americanists*, Rio de Janeiro.
1922c P. M. Gusinde's vierte Reise zum Feuerlandstamme der Yagan. In *Anthropos*, Bd. xvi-xvii, San Gabriel-Mödling.
1922d Segundo viaje á la Tierra del Fuego. In *Museo de Etnología y Antropología, Publicaciones*, tomo ii, pp. 133-163, Santiago de Chile.
1922e Tercer viaje a la Tierra del Fuego. *Ibid.*, pp. 417-436.
1924a Cuarta expedición á la Tierra del Fuego. *Ibid.*, iv.
1924b Meine vier Reisen durch das Feuerland. In *XXI Intern. Congr. Americanists*, pt. i, The Hague.
1924c P. M. Gusinde's vierte Reise zum Feuerlandstamme der Ona und seine erste Reise zum Stamme der Alakaluf. In *Anthropos*, Bd. xviii-xix, San Gabriel-Mödling.
1925a Elemente aus der Weltanschauung der Ona und Alakaluf. In *XXI Intern. Congr. Americanists*, Göteborg.

113 1926b Geheime Männerfeiern bei den Feuerländern. *Ibid.*

1926c Istruzione di Etnologia. Idee religiose in Terra del Fuoco. In *Rivista Illustrata della Esposizione Missionaria Vaticana*, vol. II, Roma.

1926d Meine Forschungsreisen im Feuerland und deren Ergebnisse. In *Anthropologischen Gesellschaft in Wien*, Bd. LV, Wien.

1926e Anthropologische Beobachtungen bei den Ona-Indianern auf Feuerland. In *Tagesberichte der Deutschen Anthropologischen Gesellschaft*, Augsburg.

1926f Die Eigentumsverhältnisse bei den Selk'nam auf Feuerland. In *Zeitschrift für Ethnologie*, Jahrg. 58, pp. 398–412, Berlin.

1926g Das Lautsystem der feuerländischen Sprachen. In *Anthropos*, Bd. XXI, San Gabriel-Mödling.

1926h Völkerwanderungen auf Feuerland und deren kulturhistorische Wertung. In *Zeitschrift für Ethnologie*, Bd. LVIII, Berlin.

1926i Zur Ethnik der Feuerländer. In *Internationale Woche für Religions-Ethnologie*, IV Tagung (Mailand, 17–25 Sept. 1925), Paris.

1928 Das Höchste Wesen bei den Selk'nam auf Feuerland. In *P. W. Schmidt Festschrift*, Wien.

Gusinde, Martin, and Lebzelter, Viktor

1927 Kraniologische Beobachtungen an feuerländischen und australischen Schädeln. In *Anthropos*, Bd. XXII, pp. 259–285, San Gabriel-Mödling.

Measurements of eleven Ona, thirty Yahgan, and six Alacaluf skulls.

Hawkesworth, John, ed.

1773 An account of the voyages . . . performed by Commodore Byron, Captain Carteret, Captain Wallis, and Captain Cook . . . drawn up from the journals which were kept by the several commanders, and from the papers of Joseph Banks, Esq. 3 vols. London.

Holmes, W. H.

1912 *See* Hrdlička.

Hrdlička, Aleš

1912 Early man in South America. [In collaboration with W. H. Holmes, Bailey Willis, F. E. Wright, and C. N. Fenner.] *Bull. 52, Bur. Amer. Ethnol.*, Washington.

Hyades, P. D. J., and Deniker, J.

1891 Mission scientifique du cap Horn. VII—Anthropologie, ethnographie. Paris.

Kent, Rockwell

1924 Voyaging southward from the Strait of Magellan. New York and London.

Contains brief descriptions of Indians.

Koppers, Wilhelm

[Father Koppers accompanied Gusinde on his third visit to Tierra del Fuego. His studies still are published only in part. Like those of his companion they are of the highest importance.]

1922a Bericht über die von Gusinde-Koppers zu Anfang 1922 zu dem Feuerlandstämmen der Yaganes unternommene Forschungsreise. In *XX Intern. Cong. Americanists*, pp. 309–314, Rio de Janeiro.

1922b Die Feuerlandreise von Gusinde-Koppers zu Anfang 1922. In *Anthropos*, Bd. XVI–XVII, pp. 520–521, St. Gabriel-Mödling.

1923c Drei Fahrten zu den Feuerländern. *Ibid.*, Bd. xv-xvi, pp. 1120-1132.

1924 Unter Feuerland-Indianern. Stuttgart.
Contains an important account of the Fuegians seen by Gusinde and Koppers, with thirty illustrations and a map.

1925 Die geheime Jugendweihe der Yagan und Alakaluf auf Feuerland. In *XXI Intern. Cong. Americanists*, pt. ii, Göteborg.

1925a Mythologie und Weltanschauung der Yagan. *Ibid.*

1926 Wo befindet sich das Manuskript letzter Redaktion des grossen Yamana- (=Yagan) Lexikons von Th. Bridges? In *Anthropos*, Bd. xxi, San Gabriel-Mödling.

1927 Die fünf Dialekte in der Sprache der Yamana auf Feuerland. *Ibid.*, Bd. xxii, Heft 3, 4, St. Gabriel-Mödling.

1928 Individualforschung unter den Primitiven, im besonderen unter den Yamana auf Feuerland. In *P. W. Schmidt Festschrift*, Wien.

Lahille, F.

1926 Matériaux pour servir à l'histoire des Oonas indigènes de la Terre de Feu. In *Revista Mus. de la Plata*, tomo xxix (3e ser., t. v) and supplement.
Contains excellent photographs of physical types.

Lebzelter, V.

1925 Ein Onaschädel aus Feuerland. *Zur Frage des Vorkommens eines australoiden Rassenelementes in Süd-Amerika.* In *XXI Intern. Congr. Americanistes*, pt. ii, Göteborg.
See Gusinde, M., *and* Lebzelter.

Lehmann-Nitsche, Roberto

1914 El grupo lingüístico Tshon. In *Revista del Museo de La Plata*, tomo xxii (2a ser., t. ix), Buenos Aires.
This important paper discusses the nomenclature of tribes, and, by comparative vocabularies, fully demonstrates the linguistic affiliation of the Ona, Haush, and Tehuelche.

1915 Études anthropologiques sur les Indiens Ona (groupe Tshon) de la Terre de Feu. *Ibid.*, tome xxiii (2me sér., tome x), Buenos Aires.
An anthropometric study of seven Ona sent to an exposition in Buenos Aires in 1898. There are nine excellent photographs taken in Buenos Aires and Tierra del Fuego.

1915a Relevamiento antropológico de una India Yagan. *Ibid.*
A detailed study made in 1902 on a young Yahgan woman.

1927 Estudios antropológicos sobre los Onas. In *Anales del Museo de La Plata*, tomo ii, entrega 2a, Buenos Aires.
An important contribution to Ona somatology, containing a useful summary of previous studies and measurements of twenty men and thirty women.

Lista, Ramón

1880 Mis exploraciones y descubrimientos en Patagonia. Buenos Aires.

1887 Viaje al país de los Onas: Tierra del Fuego. In *Revista Soc. Geog. Argentina*, tomo v, Buenos Aires.

Lothrop, S. K.

1925 Museum expedition to Tierra del Fuego. In *Indian Notes*, vol. ii, no. 4, New York.
Contains an outline of the work of the Museum of the American Indian, Heye Foundation, in Tierra del Fuego, remarks on Fuegian environment and temperament, and ten photographs.

LOTHROP, S. K., and WEIR, J. L.
1928 Ona and Yahgan. In *The Independent*, Nov. 21, Boston.
Contains twelve photographs and a short descriptive text.

MEDINA, J. T.
1882 Los aboríjenes de Chile. Santiago.

MILANESIO, DOMENICO
1917 Estudios y apuntes sobre las lenguas en general y su origen divino. *Particularidades sobre los idiomas de la Patagonia*. Buenos Aires.

MUSTERS, G. C.
1871 At home with the Patagonians. London.

OUTES, FELIX F.
1905 La edad de la piedra en Patagonia. In *Anales del Museo Nacional de Buenos Aires*, tomo XII (3ª ser., t. V), Buenos Aires.
1906 Instrumentos musicales de los Onas. *Ibid.*, tomo XIII (3ª ser., t. VI), Buenos Aires.

——, *ed.*
1926 Datos sobre la etnología y el idioma de los Yamanas de Wulaia (Isla Navarino), reunidos por el misionero R. R. Rau, con anterioridad a 1866 y anotados por Don Jorge Claraz. In *Revista del Museo de la Plata*, tomo XXX, Buenos Aires.
Contains an account of Yahgan culture, grammatical notes, and vocabulary somewhat different from that in 1926a.
1926a Sobre el idioma de los Yamanas de Wulaia. Materiales reunidos por el misionero Rau con anterioridad a 1866. *Ibid.*
Contains a Yahgan vocabulary of 321 words and a full and important list of works treating Yahgan linguistics.

OVIEDO Y VALDES, GONZALO FERNANDEZ DE
1851–55 Historia general y natural de las Indias y Tierra-Firme del Mar océano. 4 vols. Madrid.

PUJOL, SANTIAGO
[n. d.] Viajes por mi tierra. Barcelona.
Contains brief account of Indians at Harberton in 1900, and four illustrations.

RAU, R. R. *See* OUTES, F. F., ed., 1926

RIBEYROLLES, A. B.
1923 Climatología de los territorios nacionales de Santa Cruz y de Tierra del Fuego, y sus accidentes de trabajo. Indígenas de Santa Cruz y Tierra del Fuego. Enfermedades más comunes y causas originarias. In *Crónica Mensual del Departamento Nacional del Trabajo, Boletín Oficial*, VIII, Buenos Aires.

RIVET, PAUL.
1923 Nouvelles études sur les Yahgan. In *Anthropologie*, t. XXXII, Paris.

SCHMIDT, P. W.
1925 Die Stellung des Genitivs in den südamerikanischen Sprachen und ihre Bedeutung für den Sprachenbau. In *XXI Intern. Cong. Americanists*, pt. II, Göteborg.

SKOTTSBERG, CARL
1911 The wilds of Patagonia. London.

SPEGAZZINI, CARLOS
1887 Fungi fuegiani. In *Bol. de la Acad. Nacional de Ciencias en Córdoba*, tomo xi, Buenos Aires.

SPEGAZZINI, CARLOS
1923 Relación de un paseo hasta el cabo de Hornos. *Ibid.*, tomo xxvii, Córdoba (Argentina).
1924 Etimologías fueguinas. In *Physis*, vol. vii, Buenos Aires.

TONELLI, D. A.
1926 Grammatica e glossario della lingua degli Ona-Selknam della Terra del Fuoco. Torino.

VALLE CARBAJAL, LINO DEL
1900 Le missioni Salesiane nella Patagonia e regioni Magellaniche. S. Benigno Canavese.
An historical account of missionary contact with the natives.

VARGAS PONCE, JOSÉ DE
1788 Relación del último viage al estrecho de Magallanes de la fragata de S. M. Santa María de la Cabeza en los años de 1785 y 1786. Madrid.

VIGNATI, M. A.
1925 Los arpones óseos de los Indios de Tierra del Fuego. In *Physis*, tomo viii, p. 264, Buenos Aires.
A brief abstract only.
1926 El tipo de habitación actual de los Indios Onas de Tierra del Fuego. *Ibid.*, no. 30.
Describes log [illegible] house types. Two photographs.

WEISS, G.
1926 Language and religious customs of the Yahgan Indians. In *South Pacific Mail*, Sept. 23, Santiago de Chile.
Describes manuscript dictionary of 32,000 Yahgan words in possession of the Rev. Mr. Williams at Punta Arenas.

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